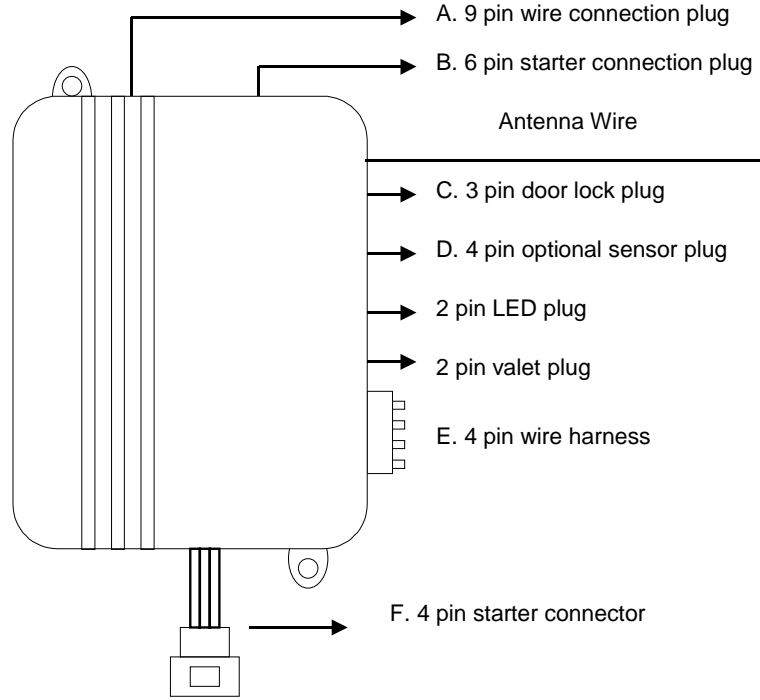


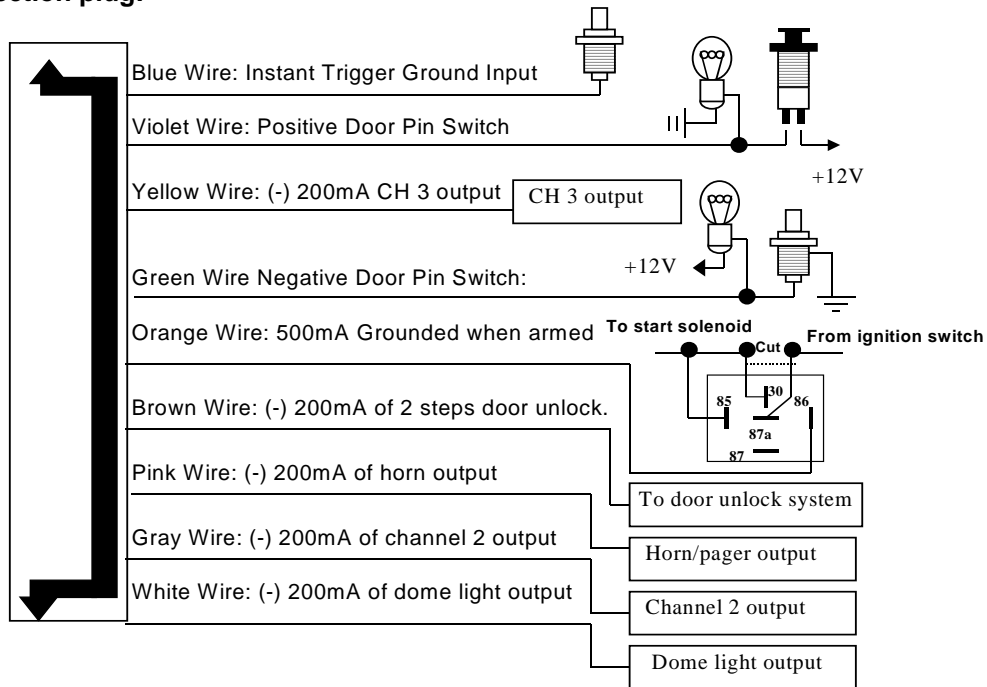
# MODEL 6978 REMOTE ENGINE STARTER WITH ALARM SYSTEM MANUAL

This system works on only auto transmission vehicle.

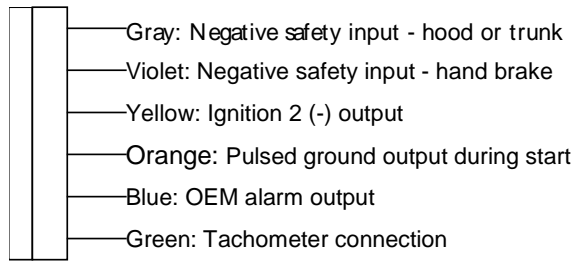


## WIRING:

### A. 9 pin wire connection plug:



**B. 6 pin starter connection plug:**

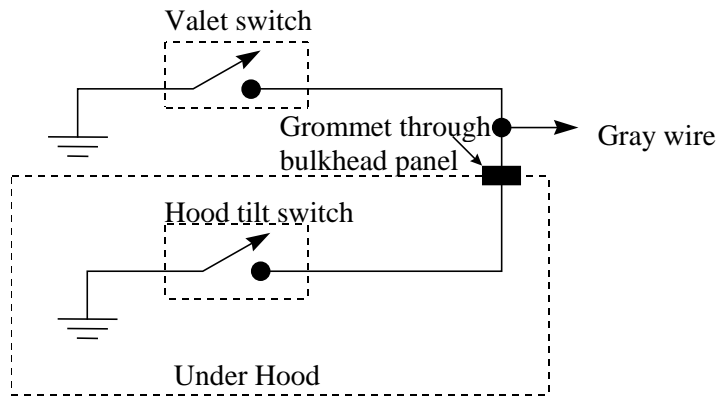


**1. Gray wire – Negative safety input - hood or trunk.**

Prevents engine from starting while vehicle is being serviced (or anytime that hood is raised).

- Mount a hood tilt switch, as suggested by the manufacture, so as anytime the hood is raised the switch will be in the closed position.
- Wire the hood tilt switch as below figure. The alarm's hood pin switch wire can be tied into this wire.
- If desired an optional valet switch can be wired as below figure.

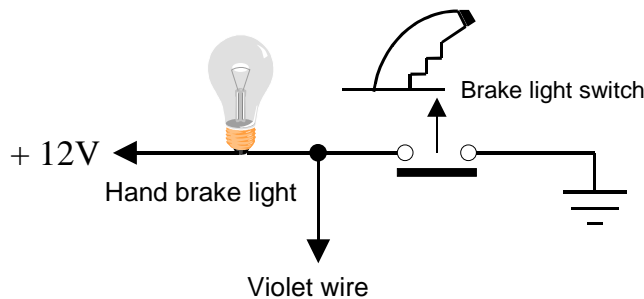
**Note: The tilt switch used must be of a type that is environmentally sealed, so that corrosion will not prevent the switch from making contact.**



**2. Violet wire:– Negative safety input - hand brake.**

Shuts engine off if hand brake is released.

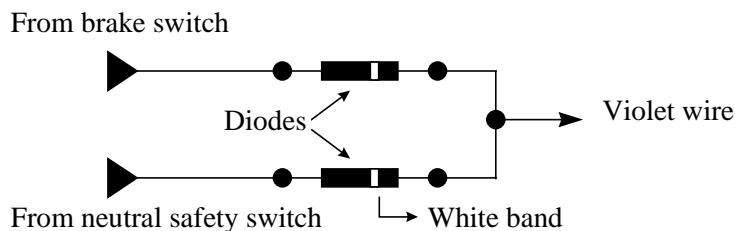
Connect to the vehicle's hand brake light wire that shows +12Volts when the hand brake is pull up. See below:



**Vehicle without a neutral safety switch**

Some vehicles are not equipped with a true neutral safety switch. If the vehicles starter will engage when the gearshift is placed in any gear other than PARK or NEUTRAL, the following steps must be followed:

- Using a voltmeter, find a wire on the back-up light/Neutral safety switch that show a positive voltage when the gearshift is in any position other than PARK or NEUTRAL.
- Connect that wire to the violet wire as shown below.



### 3. Yellow wire:- Ignition 2 ( - ) output --

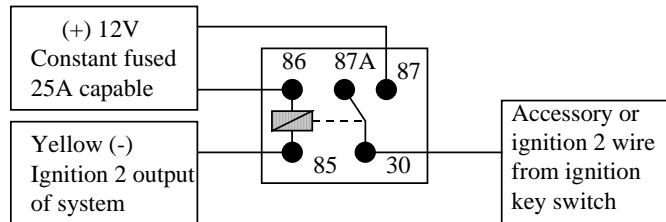
This wire provides a 200mA (-) output in conjunction with the orange (+) 12V ignition output.

The yellow wire is designed to disarm a factory installed security system. Some factory systems must be disarmed to allow remote starting. In most cases, the yellow wire may be connected directly to the factory alarm disarm wire. The correct wire will show negative ground when the key is used to unlock the doors or trunk. This wire is usually found in the kick panel area in the wiring harness coming into the car body from the door.

#### Additional Ignition circuits:

Some vehicles require that more than one 'ignition' wire be energized for the engine to run and/or the HVAC system to operate. For those vehicles, wire an IGN 2 relay (not supplied) as shown below.

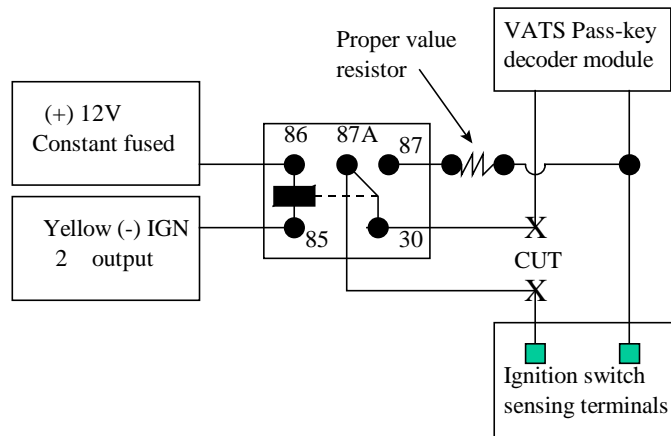
**Do not** connect any vehicle circuits together, they are isolated for a reason.



**GM VATS (or Pass-Key) starter lockout:** These vehicles have a resistor embedded in their ignition key. If the VATS decoder does not measure the correct resistance across two sensors in the ignition key switch, the starter and the fuel pump are disabled for up to 5 min. The system includes a 'VATS pack' of resistors which allow you to duplicate the value of the keys' resistor, using the diagram below.

The VATS sensor wires are available coming out of the steering column, typically on the left side. The mid-eighties Corvettes used a brown wire and a yellow wire (not the brown and yellow wires of the ignition switch harness). In the late eighties, all VATS equipped vehicles used a violet/white and white/black. These wires often change color in a two wire connector at the base of the steering column, changing into two white 20 gauge wires (often in orange tubing as they go up the column). One VATS wire will show a constant ground, and the other is the measurement input.

Note: When making these connections, don't worry about which VATS wire is which.



### 4. Orange wire –Pulsed ground output during start --

This wire provides a 200mA (-) output while the starter output of the remote start unit is active. This output can be used to activate the Crank Low/Bulb Test wire found in some GM vehicles. This wire is also referred to as the ECM wake up wire in some Chrysler vehicles.

Note: The output is low current output and must use with a relay if the circuit's requirement is more than 200mA.

### 5. Blue wire - OEM alarm output --

The blue wire can be use to connected to an available auxiliary output of an existing remote security system, that use to disarm that alarm system.

### 6. Green wire-- Tachometer connection--

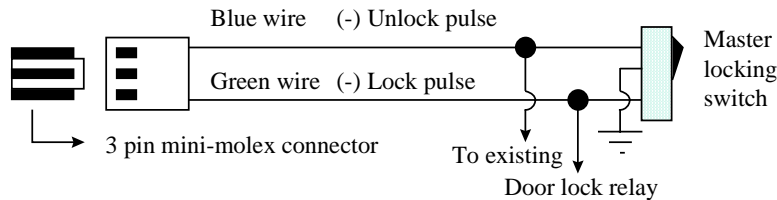
This is the module's engine RPM signal. In cars with a separate coil. It can be found at the (-) terminal of the coil. In electronic ignition system vehicle, locating the tachometer wire can be more involved. The tachometer wire, when tested with a voltmeter set to AC voltage, will test between 1V and 6V at idle, and will increase as engine RPM increases. The tachometer wire is often accessible at the electronic distributor. Below are some common colors and location of vehicles.

GM. : White, at coil or at HEI distributor. With some three-coil V6 motors, violet/white.  
 Ford: Tan/yellow or yellow/blue, at coil, at diagnostic connector, or at electronic distributor.  
 Toyota/Lexus: (-) G terminal of gray diagnostic connector under hood.  
 Honda/Acura: Blue, in two-pin connector forward of distributor.  
 Mercedes-Benz: Black, at coil under rubber boot.

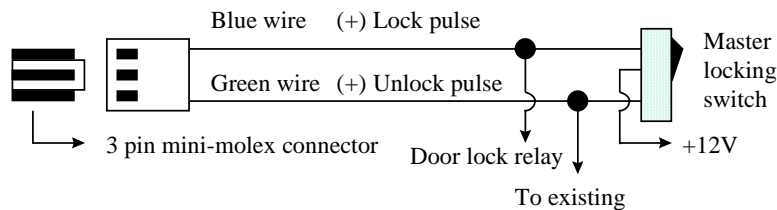
**C. 3 pin door lock plug:**

These wires will provide either a pulsed ground output to the factory door lock control relay, or a pulsed + 12 volts output to the factory door lock control relay. The current capacity of these wire is 200 mA.

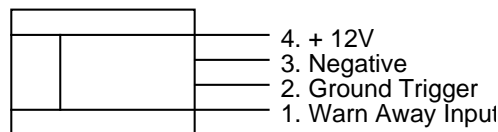
1). 2-Wire "Negative Trigger" Power Lock System.



2). 2-Wire "Positive Trigger" Power Lock System.



**D. 4 pin optional sensor plug**

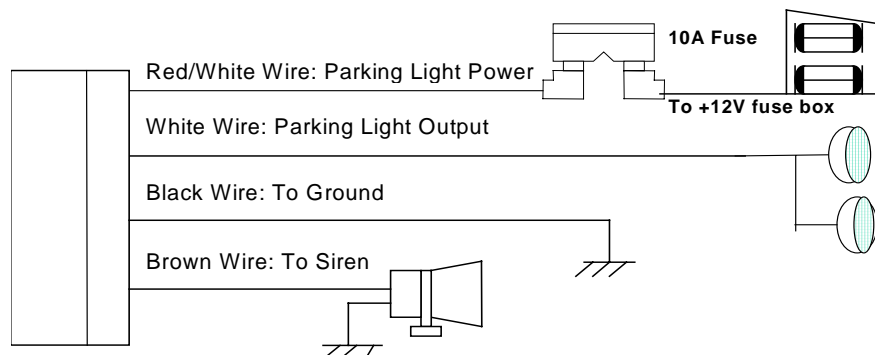


Function: Allows easy positive, negative, instant trigger, and warn-away trigger connection with quick disconnect ability for other detection devices.

Connection: A 4 pin plug and the metal pins are supplied with this alarm. Attach each of the optional detection device wires to these pins and slide the pins back into the plug. Most of our detection devices come with this plug pre-wired.

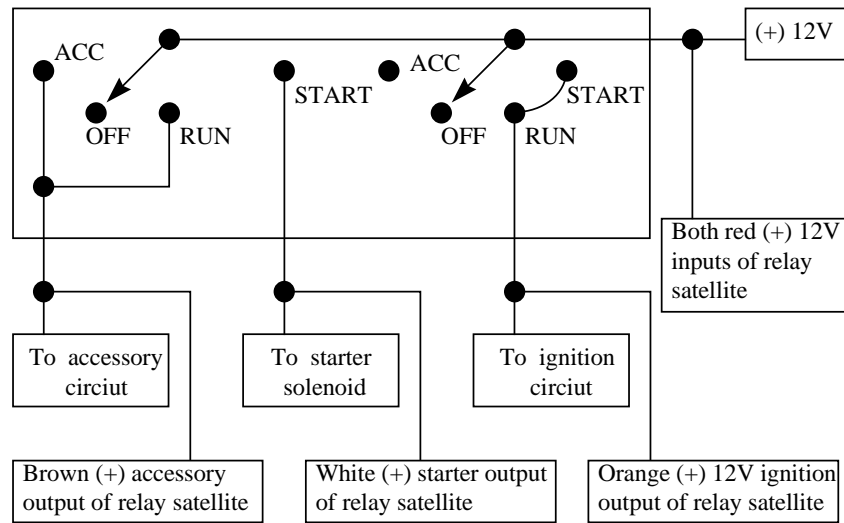
1. Outside pin = Warn away ground trigger. If the sensor or detector connects to this pin, intrude the detector, a pre- warning tone and light flash warn the intruder to turn back.
2. Outside center pin = Ground trigger. When alarm armed, the alarm will be triggered when this pin becomes grounded.
3. Inside center pin = GROUND. When alarm armed, this pin becomes grounded.
4. Inside pin =12 volts positive. Carry 12 volts all the time. Be sure not to touch ground directly (without a load), it might cause short circuit

**E. 4 pin wire harness**



## F. 4 pin starter connector

Remember that the system does to start a vehicle is duplicate the functions of the ignition key switch! Below, we will explain the three basic functions of the ignition switch. Since this installation will require analysis of the ignition switch functions, we recommend making the three connections below at the ignition switch harness directly.



### White Wire—Starter

This wire is only energized with the key in the 'start' position. There may be more than one wire meeting this description, But the proper starter wire, when energized will cause the starter to crank ( be ware of GM VATS Pass-Key system and Audi-type brake interlock switches.) Connect this white wire to vehicle starter wire.

### Red Wire -- +12V Power Input

**IMPORTANT! Remove the 30A fuses before connecting the wires, and do not replace the fuses until the harness is plugged into the module.** This supplies (+) 12V to the system. These wires need a high-current-capable (+) 12V supply for the vehicle's ignition switch, as we know sufficient current will be available there. If running to the battery for power, use 10AWG wire or larger, and use a fuse or circuit breaker at the battery terminal.

### Brown Wire – Accessory

There is usually more than one 'accessory' wire from the ignition switch. The correct wire powers the fan blower motor and the associated climate control system, along with other vehicle accessories. While the accessory circuit does not need to be powered to make the car run, the main purpose of the system is to allow the vehicle's interior to be pre-cooled or pre-heated by the climate control system. If the correct accessory circuit is not powered, this is impossible. Connect this brown wire to the vehicle's correct accessory wire.

Note: Some vehicle power the blower motor with one accessory wire, and the A/C compressor or electronic climate control system with a second accessory wire. In these cases, both wires must be powered( see above ignition II output)

**Important:** Whenever powering a secondary accessory ignition wire, a relay must be used. **Never connect two vehicle circuit together!** If they were supposed to be connected, the manufacture would have done it for you! Diodes are ineffective in this application due to the high currents involved. (see above ignition 2 output)

### Orange Wire – Ignition

This wire is powered when the key is in the 'run' and 'start' positions. All the system required to run the engine ( coil, HEI distributor, fuel pump, engine and fuel injection computers, etc.) are powered by this wire. Connect this orange wire to the vehicle's ignition wire.

## PROGRAMMING

### A. PROGRAMMING TRANSMITTER:

Maximum is 4 transmitters. Two modes of programming, one is designated channel, (Button 1 is arm/disarm) the other is auto channel setting. (Button 1 is arm, button 2 is disarm.)

1. Enter:

Turn ignition to 'on' position.

Push valet switch **3 times** to enter **designated** channel; if push **6 times** it will be **auto** channel.

1 long chirp to enter each channel's programming.

2. In designated channel:

In program 1<sup>st</sup> transmitter the LED will with one flash...pause sequence.

Press button 1 to program channel 1, 1 short chirp and LED on to confirm programmed and ready program channel 2.

Press button 2 to program channel 2, 2 short chirps and LED on to confirm programmed and ready program channel 3.

Press button 3 to program channel 3, 3 short chirps and LED on to confirm programmed and ready program channel 4.

Press button 4 to program channel 4, 4 short chirps and LED on to confirm programmed

Program 2<sup>nd</sup> transmitter, push valet switch one time, the LED will with two flashes...pause sequence.

Press button 1 to program channel 1, 1 short chirp and LED on to confirm programmed and ready program channel 2.

Press button 2 to program channel 2, 2 short chirps and LED on to confirm programmed and ready program channel 3.

Press button 3 to program channel 3, 3 short chirps and LED on to confirm programmed and ready program channel 4.

Press button 4 to program channel 4, 4 short chirps and LED on to confirm programmed

Program 3<sup>rd</sup> transmitter, push valet switch one time again, the LED will with three flashes...pause sequence.

Use above steps to program each channel.

Program 4<sup>th</sup> transmitter, push valet switch one time again, the LED will with four flashes...pause sequence.

Use above steps to program each channel.

### 3. In auto channel:

In program 1<sup>st</sup> transmitter the LED will with one flash...pause sequence.

Press any button on 1<sup>st</sup> TX, 1 short chirp confirm programmed and ready program 2<sup>nd</sup> TX

The LED will with two flashes...pause sequence.

Press any button on 2<sup>nd</sup> TX. 1 short chirp confirm programmed and ready program 3<sup>rd</sup> TX.

The LED will with three flashes...pause sequence.

Apply the same procedure to program 3<sup>rd</sup> and 4<sup>th</sup>, after the 4<sup>th</sup> transmitter programmed the system will auto exit.

### 4. Exit:

Turn ignition to 'off' position, or leave it for 15 seconds. A 3 long chirps to confirm exit.

Note: If more than 4 transmitters programmed, the system only kept the last 4 transmitters.

## **B. PROGRAMMING OPTIONAL SENSOR (PIR OR DOOR/WINDOW SENSOR)**

This system has a very unique interfacing with optional sensor, to extend more protection, such as PIR (IR-73) sensor or Door/Window sensor. (DS-70)

For example, in your garage you can put a PIR for protection. (A device to detect person's movement in a protected area.) If system armed, a person walk through the detect area, the siren inside the car will alarming to raise the attention to the owner. So the same thing applies in door/window sensor, (A device to detect door/window open.) you may put the sensor to the garage door or window. If system armed, a person opens the door or window, the siren will alarm.

Maximum program 4 different sensor codes.

The programming procedure is the same as above A. PROGRAMMING TRANSMITTER of auto channel, The difference is only upon enter you **push the valet switch 9 times**. (1 long chirp to confirm enters).

During programming, you will need to activate the sensor to let the system program it's code.

## **C. PROGRAMMING (RPM) TACHOMETER:**

**(Must connect 6-pin starter connection plug of green tachometer wire to vehicle's tachometer, and select RPM start on the programming features.)**

ENTER:

Turn ignition switch 'on', and start the engine, with engine running.

Push valet switch 3 times, there will be 1 long chirp, and LED fast flashing confirm enter.

Again press the valet switch 2 seconds, there will be a short chirp and LED solid on for a while confirm enter.

EXIT:

Turn the ignition switch 'off'. Or leave it for 15 seconds, system will auto-exit.

## **D. PROGRAMMING FEATURES:**

There are 3 stages of totally 19 programming features to select. (Factory preset all features to "ON" position)

### 1. Enter:

Turn the ignition 'on' then 'off'. Within 15 seconds push the valet switch 6 times. (A long chirp.) It is on first stage programming features.

### 2. First stage programming features:

Push the valet switch times that equal the feature number you want. Example: Push valet switch 2 times, it's on chirp on/off selection. The siren will chirp 2 times, LED flash 2 times to confirm enter this feature.

Select chirp on, turn ignition from 'off' to 'on'. 1 chirp for confirmation.

Select chirp off, turn ignition from 'on' to 'off'. 2 chirps for confirmation.

If you want to program car jacking when the system is on chirp on/off, push valet switch 4 times again. (Siren chirp 6 times, LED flash 6 times) The system will add on the previous valet switch pushing.

Note: Totally push valet switch 7 times, the siren chirp 7 times, and LED with 7 flashes... pause sequence. If push the valet switch again, system will return to feature 1. (Siren chirp 1 time, and LED with 1 flash...pause sequence. It's cycling.)

### 3. Second stage programming features:

Enter: Turn the ignition 'on' then 'off'. Within 15 seconds push the valet switch 6 times. (A long chirp.) And push & hold the valet switch for over 2 seconds, with 1 long chirp confirmation.

By using first stage programming features method to program second stage's features.

4. Third stage programming features:

Enter: Turn the ignition 'on' then 'off'. Within 15 seconds push the valet switch 6 times. (A long chirp.) And push & hold the valet switch for over 2 seconds, with 1 long chirp confirmation. Again push & hold the valet switch for over 2 seconds, with 1 long chirp confirmation.

By using first stage programming features method to program second stage's features.

5. Exit:

During programming, if you don't respond to previous step in 15 seconds, or any time press transmitter's button 1, it will exit features programming, which indicates by 3 long chirps.

FIRST STAGE:

Push valet switch times:	Chirp, parking light flash times	Turn ignition from 'OFF' to 'ON'	Turn ignition from 'ON' to 'OFF'
Show		1 short chirp	2 short chirps
Select		Feature " ON "	Feature " OFF "
1	1	Current sensor ON	Current sensor OFF
2	2	Chirp ON	Chirp OFF
3	3	Active arming	Passive arming
4	4	Rearm ON	Rearm OFF
*5	5	Voltage sensor 3 sec.arming delay.	Voltage sensor 30 sec.arming delay.
6	6	Car-Jacking OFF	Car-Jacking ON
7	7	Password OFF	Password ON

SECOND STAGE:

Push valet switch times:	Chirp parking light flash times	Turn ignition from 'OFF' to 'ON'	Turn ignition from 'ON' to 'OFF'
Show		One short chirp	Two short chirps
Select		Feature " ON "	Feature " OFF "
1	1	Lock/unlock 0.8 sec.	Lock/unlock 3.5 sec.
*2	2	2-pulse unlock OFF.	2-pulse unlock ON.
3	3	Passive door lock ON	Passive door lock OFF.
4	4	Ignition on door lock ON	Ignition on door lock OFF
5	5	Ignition off door unlock ON	Ignition off door unlock OFF
6	6	Disarm parking light OFF.	Disarm parking light on 30"

THIRD STAGE:

Push valet switch times:	Chirp parking light flash times	Turn ignition from 'OFF' to 'ON'	Turn ignition from 'ON' to 'OFF'
Show		One short chirp	Two short chirps
Select		Feature " ON "	Feature " OFF "
*1	1	Voltage start.	RPM start.
2	2	Running time 10 min.	Running time 20 min.
3	3	Before start door lock OFF	Before start door lock ON
4	4	Ignition off door lock OFF	Ignition off door lock ON
5	5	Ignition 2 ON during crank	Ignition 2 OFF during crank
6	6	Gasoline	Diesel

NOTE:

For system programming features all returns to presetting "ON", turn the ignition 'on' then 'off'. Within 15 seconds push the valet switch 3 times. (A long chirp.) Then press button 1 and 2 together for 5 seconds, there will be a confirmation long chirp.

\*Voltage sensor 3/30 seconds arming delay.

Set 3 sec.: Upon close the door, vehicle's interior light will not light up.

Set 30 sec.: Upon close the door, vehicle's interior light will light up.

\* 2- pulse unlock off / on:

Set off: For most regular vehicles that require only single pulse to unlock doors.

Set on: For some vehicles that require two pulses to unlock the doors.

\* Voltage / RPM start:

Determines how the system will monitor engine speed.

Select voltage start: The system uses voltage level automatically monitoring engine speed. That is by monitor AC voltage from the negative side of the coil.

Select RPM start: The system will detect the engine's tachometer signal as the start selection.

## E. PROGRAMMING PASSWORD:

1. Turn ignition on then within 10 seconds push valet switch for 2 seconds.
2. LED will turn on.
3. Within 4 seconds, turn ignition key 'off-on-off-on-off'. A confirmation long chirp from siren.
4. LED will slow flash from 1 through 10 for 3 cycles. Wait until LED flash to your selected number.
4. As soon as LED turns on your selected number, quickly turn ignition key 'on-off'.
5. A long chirp from siren, the number is programmed.
6. LED will show the programmed number for 2 cycles.

Example: To program password number 5, you would;

1. Turn ignition key on, press valet switch 2 seconds.
2. Turn ignition 'off-on-off-on-off'.
3. Wait until LED flash 5 times, then quickly turn ignition on-off. A long chirp from siren.
4. LED will flash 5 times to indicate your password number is 5.

## F. PROGRAMMING VOLTAGE/RPM START OF TIME OR VALUE:

Since different vehicle model has different engine start pattern, some cars require longer crank time to start engine, while some are not. So this section is for user to adjust their vehicles' engine crank time. Or user can select RPM start value to real monitor their vehicles' tachometer RPM value.

If user use voltage start pattern to remote start. (PROGRAMMING FEATURES of third stages of No. 1 voltage/RPM selection). This section goes on adjust voltage start of crank time. If use RPM start pattern, then it goes on adjust RPM start value.

ENTER:

1. Turn ignition on then off.
2. Press valet switch 3 times, there will be a confirmation chirp.
3. Press button 4 on the transmitter, there will be short chirp(s).

### For voltage start (factory preset on 4 chirps of 2 seconds)

1 short chirp is 0.5 second crank time, 2 chirps is 1.0 seconds, 3 chirps is 1.5 seconds, 4 chirps is 2.0 seconds, 5 chirps is 2.5 seconds and 6 chirps is 3.0 seconds.

### For RPM start (factory preset on 2 chirps of 90% value)

1 short chirp is 70% value of RPM, 2 chirps is 90% value of RPM and 3 chirps is 100% value of RPM.

4. Use valet switch to program your desired time or value.
5. Push one time of valet switch that will add up one time of the chirp(s).
6. For example the system use voltage start, and upon entering, (press button 4) siren chirp 4 times. You want to adjust the crank time to 3.0 seconds. Then you need to push the valet switch 2 times. The siren will chirp 6 times. If you would like to change to 1.5 seconds, after 6 chirps, press switch 3 times again. Siren will chirp 3 times. The programming method is cycling.

EXIT:

Turn ignition on, or press button 1 on transmitter. There will be 3 long chirps for confirmation.

## DIAGNOSTIC PARKING LIGHT

The system has a built-in diagnostic routine which indicate why the unit turned the engine off the last time the unit was used. The parking light will flash 1 to 4 times to indicate which of the following caused the engine off.

1. 1 flash ---- RPM fail. (Check up the 6-pin starter plug wires of No. 6 green wire connection.)
2. 2 flashes----Voltage fail. (The vehicle's battery power is below 11 volts)
3. 3 flashes----Hood fail. ( Hood is opened, or check up the wiring of the blue wire coming from the main harness)
4. 4 flashes----Hand brake fail. ( Hand brake is released, before remote start, check up the hand brake must pull up, and the 6-pin starter plug wires of No. 2 violet wire connection)

## OPERATION:

### A. TRANSMITTER OPERATION: (4 buttons transmitter)

For designated channel setting:

Transmitter Button	System Function	Remark
Button 1	Arm/disarm & door lock/unlock	



Button 1	Panic function	Press 3 sec
Button 1 - 1	Arm and delete optional sensor	In disarm, press twice.
Button 1 - 1	Disarm and 2 steps door unlock	In arm, press twice.
Button 2	Channel 2 (trunk) control	Press 2 sec.
Button 2 - 2	Passive arming by-pass	Press twice.
Button 3	Channel 3 control	
Button 4	Car locator	
Button 4	Remote start	Press 2 seconds.
Button 1 + 2 both	Silent arm/disarm	<b>Ignition in "off" position.</b>
Button 1 + 2 both 1 sec	Activate car-jacking	<b>Ignition in 'on' position</b>

For auto channel setting:

Transmitter Button	System Function	Remark
Button 1	Arm & door lock	
Button 1	Panic function	Press 3 sec.
Button 1 - 1	Arm and delete optional sensor	Press twice.
Button 2	Disarm & door unlock	
Button 2 - 2	Disarm and 2 steps door unlock	Press twice.
Button 2	Channel 2 (trunk) control	Press 2 sec.
Button 3	Channel 2 (trunk) control	Press 2 sec.
Button 3 - 3	Passive arming by-pass	Press twice.
Button 1 + 3 both	Channel 3 control	
Button 4	Car locator	
Button 4	Remote start	Press 2 seconds.
Button 1 + 2 both	Silent arm/disarm	<b>Ignition in "off" position.</b>
Button 1 + 2 both 1 sec	Activate car-jacking	<b>Ignition in 'on' position</b>

## B. REMOTE ENGINE START FEATURES:

### REMOTE START ENGINE:

When you want to start your vehicle, press button 4 for 2 seconds on the transmitter, the system will turn on the parking light, and locked all doors, to indicate successfully started.

### REMOTE STOP ENGINE:

When the engine is running (by remote start), if you want to stop it, press button 4 on the transmitter, the system will shut down the engine and turn off the parking light to indicate engine stopped.

## C. LED display:

LED	Function	LED	Function
Off	Disarmed	2 flashes... pause	Trigger on trunk/hood
Slow flash	Armed	3 flashes... pause	Trigger on door switch
Fast flash	Passive arming	4 flashes... pause	Trigger on sensor
On (solid)	Valet mode	5 flashes... pause	Trigger on PIR Door / window sensor

## D. CHIRP INDICATORS:

Chirp	Function
1 chirp	Arm
2 chirps	Disarm
3 chirps	Defective reminder
4 chirps	Disarm / Triggered
6 chirps	Car locator

## E. PARKING LIGHT:

Parking light	Function
1 flash	Arm
2 flashes	Disarm
3 flashes	Disarm / Triggered
5 flashes	Transmitter low battery.
12 flashes	Car locator

## F. OVERRIDE/VALET SWITCH:

### 1. OVERRIDE FUNCTION:

Use in emergency, like lost or malfunctions of transmitter. Turn ignition on, within 10 seconds push the override/valet switch, the siren will stop and the system disarmed.

## 2. VALET MODE:

Vehicle in for maintenance or valet parking, the system will not arm.

- a. Turn ignition on then within 10 seconds push and hold override/valet switch for 2 seconds, the LED will turn on indicates the system is in 'valet mode'.
- b. System stay in 'valet mode', transmitter still can remote operating lock or unlock the doors, parking light, pop trunk release and panic function. But no alarm function.
- c. Return to normal operation, turn ignition 'on', then within 10 seconds, push and hold override/valet switch for 2 seconds, it will exit the valet.

## G. PASSIVE ARMING

It operate as below:

1. Turn 'off' the ignition.
2. Leave vehicle and close all doors.
3. LED fast flashing.
- 4 After 30 sec. System auto arming

Note: during the 30 sec. If open the door the time will stop counting down, until all doors closed then again re-start count down for 30 sec.

**Passive arming by-pass:** Press button 2 twice (designated channel setting), to temporarily by-pass passive arming. That's for prevent locking yourself out of the vehicle (For example fill up the gas).

A short chirp will confirm this by-pass.

Re-open the door will **not** start the passive arming again.

Note: It's only temporarily by-pass. When turn ignition 'on - off ' or use transmitter to arm or disarm, this by-pass will cancel.

## H. ACTIVE ARMING:

1. Press arm button on transmitter.
2. The siren will chirp once after 3 seconds the system will be fully arm.

NOTE: Defective sensor reminder: 3 chirp indicate defective sensor occurred.

Special Note: If the system is interfacing with optional sensor, such as PIR or door/window sensor, upon system armed, if the PIR or door sensor triggered, the system will full alarming.

## I. ACTIVE DISARMING:

1. Press disarm button on the transmitter.
2. The siren will chirp twice to indicate that system disarmed.

NOTE: 1. Tamper disarming: If alarm triggered, upon disarm the system, siren chirp 4 times, parking light flash 3 times.

NOTE: 2. Automatic re-arm: No doors open and no ignition on after disarm; after 60 seconds system auto rearm.

## J. PANIC FUNCTION:

The transmitter can be used as a remote panic switch to manually trigger the alarm in case emergency. To do so, hold button 1 for 3 seconds, and the system will full alarming. To stop panic, press button 1 again or press disarm button.

## K. TRIGGER THE SYSTEM

While system in armed condition, open the doors, hood, trunk or trigger the optional sensors, siren and parking light will turn on to alerting 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 3 times of 30 or 60 seconds cycles.

## L. DOME LIGHT CONVENIENCE DELAY & SUPERVISION

Upon disarming, the dome lights will remain on for 30 seconds.

If the vehicle triggered, the dome light will flashing as the same duration as siren.

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

## M. ANTI CAR-JACKING

**Warning: If you don't want to have car jacking in this alarm system, be sure to set car-jacking off. (See programming features)**

2-timer circuits will function as follows:

First timer:

60 seconds after the ignition is turned on, open the door then close the door, or press & hold transmitter's button 1 and 2 for 1 second. The siren will start alarming, and parking light will flashing. Within 30 seconds, you will be alert to turn the ignition switch from off to on, and within 10 seconds push valet switch to turn off the car jacking feature. If not, it will enter second timer car jacking.

Second timer:

Totally after 90 seconds from beginning, siren still alarming and parking light still flashing, and the starter disable will activate to prevent the vehicle from starting. Override the system to turn off car jacking. (Ignition from off to on, and within 10 seconds push valet switch)

#### **N. IGNITION CONTROL POWER DOOR LOCK SAFETY SYSTEM.**

The vehicle's doors will automatically lock after the ignition key turn 'on' (if all doors are closed.) And when the ignition key turn 'Off', the doors will automatically unlock.

#### **O. TRUNK RELEASE.**

Press and hold button 2 on transmitter for two seconds to remote control the trunk release or other electric devices.

#### **P. CHANNEL 3 CONTROL**

Press button 3 (designated channel setting), or button 1+3 together (auto channel setting) to remote control the optional electrical device. The device will 'on' when the button(s) press continuously, and 'off' when the button(s) released.

#### **Q. CAR LOCATOR**

Press button 4 will active car locator function. The siren will chirp 6 times. The parking light will flash 12 times, for you to easily locate your car.

#### **R. TRANSMITTER LOW BATTERY:**

##### **(Random code transmitter only)**

When the transmitter is in low battery condition, the system will show up by parking light flash 5 times, to remind the user to change the low battery.

#### **S. PASSWORD SECURITY**

In carry this feature you need to set features programming of password 'ON' first. Then program your password number. Please see above PROGRAMMING section.

##### **From arm to disarm:**

1. Open the door, siren will sound.
2. Turn ignition key on.
3. Push valet switch.

Note: When finished above procedures, system's siren stop alarming, parking light stop flashing, other sensor stop trigger, but the vehicle can not be start and drive away.

##### **Use password to cancel the system re-arm: ( Re-arm timer 30 seconds)**

When system disarmed, the LED start flashing, indicate system entered password procedures.

##### **Cancel system re-arm itself:**

Wait until LED flash to your password number, then turn the ignition key 'on-off', to cancel re-arm.

You must make sure to turn the ignition key off at the correct number within 30 seconds. If not, the system will automatically re-arm.

Example: To cancel re-arm using password number 5 of above, you would;

1. Open the door. Siren sound.
2. Turn ignition key on.
3. Push valet switch.
4. Wait LED flash 5 times, then quickly turn ignition key off.

Note 1: The number is form 1 through 10, by counting LED flash. Legal user can program the number.

Note 2: If some one turn the ignition key off at wrong override number, the system allows him to make 2 mistakes, if third time still wrong, it will automatically shut down for 3 minutes. During the period the system will not accept any correct number, and when time is up it will re-armed again; which with siren one chirp and parking light one flash, LED flashing, door locked and activate sensors to guard the vehicle.

#### **T. SAFETY FEATURES:**

If any of the following conditions exist while the system is operating, the engine will not start or will shut off immediately:

1. Hood is opened.
2. Brake pedal is pressed.
3. Engine exceeds 3 times the programmed idle speed.
4. Gear shift is in a position other than 'PARK' or 'NEUTRAL'.
5. 10 minutes or 20 minutes time period runs out.

#### **U. CONVENIENT FEATURES:**

**4 hours auto start:** This feature is design for an extreme cold climate usage. The system will auto start the vehicle every 4 hours, to prevent engine freezing and hard to start.

**24 hours auto start:** This feature is design for a battery charge usage. When the car owner has a long vocation, he can use this feature to auto start the vehicle and charge the battery every day, to prevent a low battery.

Below is how to setup.

ENTER:

1. System in disarm condition.
2. Turn ignition switch on then off.
3. Within 15 seconds, push valet switch 9 times.
4. There will be a long chirp to confirm enter setup auto start.

Program 4 hours or 24 hours:

1. Push valet switch one time, there could be 1 chirp or 4 chirps.
2. 1 chirp means 4 hours auto start.
3. 4 chirps means 24 hours auto start.
4. If it's 1 chirp and you would like to setup 4 chirps, push the valet switch again. The chirp(s) is cycling.
5. Press and hold the transmitter's button 4 for 2 seconds.
6. System will send 3 long chirps to confirm programmed, and also exit.

EXIT:

1. During programming turn ignition switch on, or
2. Leave it for 15 seconds. The system will send 3 long chirps to confirm exit.

Cancel the 4/24 hours auto start:

1. You turn the ignition switch on, and drive the car.
2. You use the transmitter to remote engine start the car.

If above happens, the system will automatically cancel the auto start.

For safety reason; if any of the following occurs while the engine is operating, the system will automatically stop the engine and also cancel the auto start.

1. Hood is opened.
2. Brake pedal is pressed.

**NOTE:**

**If the auto start is cancelled, and you wish the system to auto start again, you have to setup the auto start again.**

**V. ALARM OPERATING CONDITION:**

	Siren, horn	Parking Light	LED	Doors	Starter disable
1. Arming	1 Chirp	1 Flash	Slow flash	Locking	On
2. Disarming	2 or 4 Chirps	2 or 3 Flashes	Fast flash	Unlocking	Off
3. Trigger	Alarming	Flashes	Slow flash		On
4. Panic	Alarming	Flashes	Slow flash	Locking	
5. Car-Jacking	Alarming	Flashes	Slow flash		On
6. Car locator	6 chirps	12 flashes			

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.