



## Model APS422E Installation Manual

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## **Before You Begin**

### **PROFESSIONAL INSTALLATION IS STRONGLY RECOMMENDED**

Roll down window to avoid locking the keys in the vehicle during installation.

Avoid mounting components or routing wires near hot surfaces or near moving parts like the steering wheel as it may prevent proper operation of the vehicle.

Tape or loom wires under the hood and dash for protection as well appearance

Use grommets when routing wires through metal surfaces to prevent chafing and shorting.

Use a Digital Multi Meter for testing and verifying circuits. DO NOT USE A "TEST LIGHT" OR "COMPUTER SAFE PROBE" as these can set off air bags or damage sensitive vehicle computers and electronics.

**For technical support go to [www.avxtech1.com](http://www.avxtech1.com)  
or call 1 800 225 6074**

#### **FCC COMPLIANCE**

This device complies with Part 15 of the FCC rules and with RSS-210 of Industry Canada.

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 any interference that may cause undesired operation.

#### **Warning!**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

<b>6 Pin Power Harness:</b>	<b># 1124317</b>
1 Blue	Ignition 1 (+)
2 Red/White	Battery 1 - 12V (+)
3 Green	Ignition 2 (+)
4 Purple	Accessory (+)
5 Red	Battery 2 - 12V (+)
6 Yellow	Starter Output

<b>10 Pin Input/Output Harness:</b>	<b># 1124316</b>
1 Green/Orange	Tachometer Input
2 Empty Cavity	NA
3 Black/Blue	Pulse Before Start
4 Black/LT. Green	Pulse After Start
5 LT. Blue	Ground While Running Output
6 Green/Yellow	Glow Plug Input
7 Brown	(+) Stop Input (Brake Sw.)
8 Gray	(-) Negative Stop Input (Hood Sw.)
9 Black/Red	Pulse After Shutdown
10 Black/Yellow	Pulse During Crank

<b>4 Pin Main Harness:</b>	<b># 1124320</b>
1 Black	Ground
2 White/Red	Parking Light Relay Input
3 Yellow/Black	To Controlling Alarm's Ign. Input
4 White	Parking Light Relay Output

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**This Remote Start System is designed to be used with Automatic Transmission - Fuel Injection Vehicles Only!**

**INSTALLATION OF THE MAJOR COMPONENTS:**

**CONTROL MODULE: (P/N 1365444)**

Select a mounting location inside the passenger compartment (up behind the dashboard). The mounting location selected must be within 24" of the ignition switch wiring harness to allow connection of the 6 pin main wiring harness.

Be certain that the chosen location will not interfere with proper operation of the vehicle. Avoid mounting the module to or routing the wiring around the steering shaft/column, as the module or wiring may wrap around or block the steering wheel preventing proper control of the vehicle. Secure the module in the chosen location using cable ties or screws as necessary.

**Do Not Mount The Module In The Engine Compartment, as it is not waterproof.**

**THE RECEIVER/ANTENNA VALET SWITCH LED ASSEMBLY: (P/N 1181256)**

The Superheterodyne Receiver Antenna Assembly which includes the LED and Valet/ Programming switch provided with this unit allows routing from below the dashboard for maximum operating range. Choose a location above the belt line (dashboard) of the vehicle for best reception. Special considerations must be made for windshield glass as some newer vehicles utilize a metallic shielded window glass that will inhibit or restrict RF reception. In these vehicles, route the antenna toward a rear window location for best reception. Secure the antenna with double stick tape provided. After securing the antenna with tape, we advise also securing a section of the antenna cable to a fixed support. This will prevent the antenna from dropping down in case the double stick tape is exposed to extreme heat which may loosen its gummed surface. Route the connector toward the control module using caution not to pinch the cable as this will cause poor or no RF reception to the control module. Connect the 5 pin cable to the mating connector of control module.

**HOOD PIN SWITCH: (P/N 1363699)**

The pin switch included in this package are intended for protecting the hood area of the vehicle. In all cases, the switch must be mounted to a grounded metal surface. When the pin switch is activated, (hood/trunk open), it will supply a ground to the input wire to inhibit the remote start function. In addition, the hood switch is required for the safety shut down of the remote start unit. If the vehicle is being worked on, this hood switch prevents the remote start activation even if the RF command to start is issued. **This switch must be installed in all applications. Failure to do so may result in personal injury or property damage.**

Mount the switch in the hood locations away from water drain paths. If necessary, a bracket may be used to move the switch away from rain gutters or allow mounting to the firewall behind the hood seal. In both cases the switch must be set up to allow the hood to depress the switch at least 1/4 inch when the hood is closed and fully extended when the hood is opened. For direct mounting, a 1/4 inch hole must be drilled. Carefully check behind the chosen location to insure the drill will not penetrate any existing factory wiring or fluid lines.

Drill a 1/4" hole in the desired location and thread the pin switch into it using a 7/16" nut driver or deep well socket. If using the mounting bracket, first secure the bracket to the desired location and secure the pin switch in the pre-threaded mounting bracket hole.

**DO NOT PLUG THE SIX PIN MAIN POWER HARNESS OR THE MULTI PIN INPUT / OUTPUT HARNESS INTO THE CONTROL MODULE UNTIL ALL CONNECTIONS TO THE VEHICLE HAVE BEEN MADE. AFTER SELECTING YOUR TARGET WIRES AS DEFINED BELOW, DISCONNECT THE NEGATIVE BATTERY CABLE FROM THE VEHICLE BATTERY PRIOR TO MAKING ANY CONNECTIONS.**

**NOTE: Do not remove the fuse holders from this wire harness. Fuses must be used and located as close as possible to the power source for adequate protection of the vehicle.**

**WIRING THE 6 PIN MAIN POWER HARNESS Connector (P/N 1124317)**

**1) BLUE Wire: Ignition 1 Output**

Connect this wire to the Ignition 1 Wire from the ignition switch. This wire will show +12 Volts when the ignition key is turned to the "ON" or "RUN" and the "START" or CRANK" positions, and will have 0 Volts when the key is turned to the "OFF" and "ACCESSORY" positions.

**2) RED/WHITE TRACE Wire: +12 Volt Battery 1 Source 20A Max**

Locate the vehicle battery wire(s) at the ignition switch. Verification: These wires will register voltage in all positions of the ignition switch. Connect the Red w/White Wire to the vehicle's battery wire. This wire provides power for the control circuit as well as the ignition 1 and ignition 2 relays.

**3) GREEN Wire: Ignition 2 Output**

Connect this wire to the Ignition 2 Wire from the ignition switch. This wire will show +12 Volts when the ignition key is turned to the "ON" or "RUN" position and in some cases the "START" or CRANK" position. This wire will show 0 Volts when the key is turned to the "OFF" and "ACCESSORY" positions.

NOTE: See programming information (Bank 3 Selection # 7) concerning this wire to allow output during the "START" mode.

**4) PURPLE Wire: Accessory Output**

Connect this wire to the Accessory wire from the ignition switch. This wire will show +12 Volts when the ignition switch is turned to the "ACCESSORY" or "ON" and "RUN" positions, and will show 0 Volts when the key is turned to the "OFF" and "START" or "CRANK" positions.

**5) RED Wire: +12 Volt Battery 2 Source 30A Max**

Locate the vehicle battery wire(s) at the ignition switch. Verification: These wires will register voltage in all positions of the ignition switch. Connect the Red Wire to the vehicle's battery wire. This wire provides power for the start relay and the accessory relay.

**6) YELLOW Wire: Starter Output**

**Careful consideration for the connection of this wire must be made to prevent the vehicle from starting while in gear. Understanding the difference between a mechanical and an electrical Neutral Start Switch will allow you to properly identify the circuit and select the correct installation method. In addition you will realize why the connection of the safety wire is required for all mechanical switch configurations.**

Failure to make this connection properly can result in personal injury and property damage. In all installations it is the responsibility of the installing technician to test the remote start unit and ensure that the vehicle cannot start via RF control in any gear selection other than park or neutral.

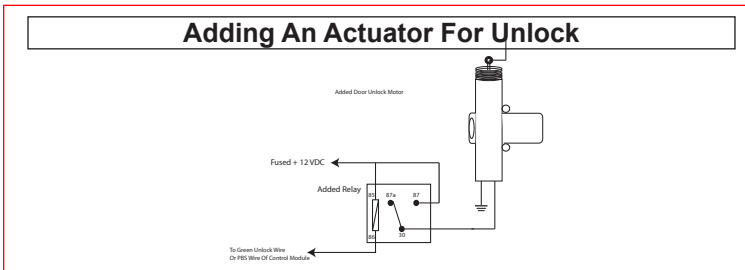
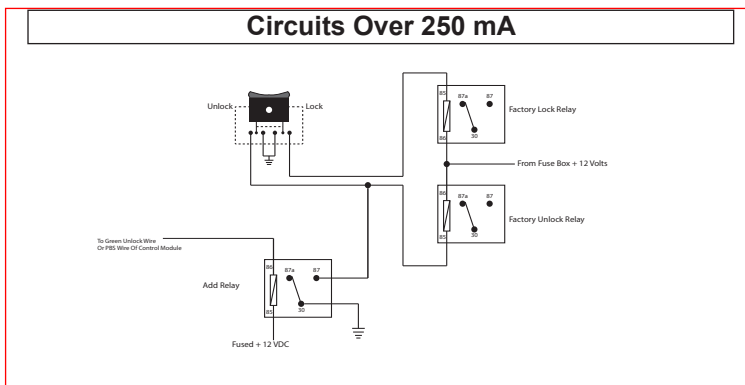
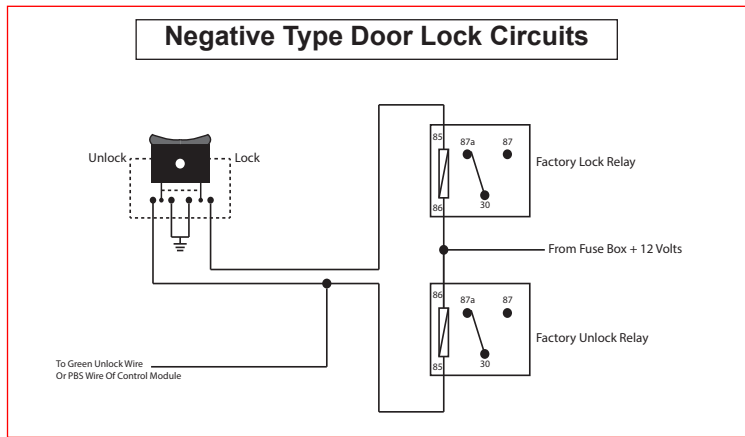
In both mechanical and electrical neutral start switch configurations, the connection of the Starter wire will be made to the low current start solenoid wire of the ignition switch harness. This wire will have +12 Volts when the ignition switch is turned to the start (crank) position only. This wire will have 0 Volts in all other ignition switch positions.

**When using the Black/Blue PBS wire for door unlock.**

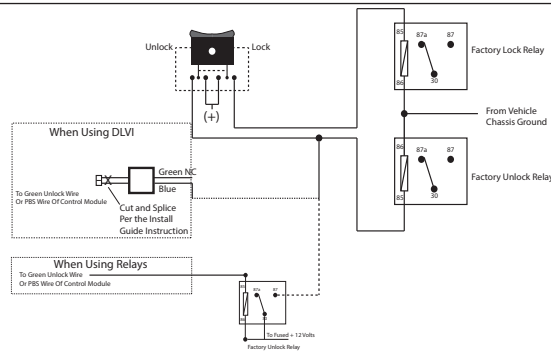
The output of this wire has a maximum switching capability of 250 mA. Many vehicles today have factory door lock relays which can be connected directly to this output, however always confirm that the factory relays in your particular vehicle do not exceed the rated 250mA output of the units door unlock circuit. Connect the Black/Blue to the door unlock circuit of the vehicle you are working on and wire according to the diagrams shown.

**3 Wire Negative Switched Door Lock Circuits:**

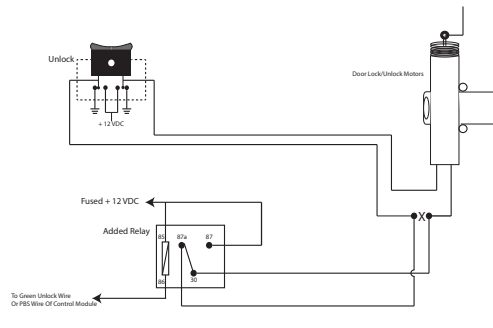
In this application, the Black/Blue provides a negative pulse before starting. While running if the transmitter button is pressed and held it will unlock the doors. Connect the Black/Blue Wire to the low current negative signal wire from the factory door unlock switch to the factory door unlock relay.



### Positive Switched Door Unlock Circuits



### Polarity Reversal Rest At Ground



### Wiring The 10 Pin Input / Output Harness, Connector (P/N 1124316)

The auxiliary 10 pin connector provides low current outputs to control various functions in the vehicle during different stages of the Remote Start unit's operation. Understanding these outputs and the time in which they occur will allow you to determine if they are needed for the particular vehicle you are working on as well as how to use them.

#### 1) Green/Orange Wire: Tachometer Input Signal

This wire will continually monitor the engine's tach rate while the unit is under power of the Remote Start module. Route this wire to the vehicle ECM tach input or through the firewall into the engine compartment and connect to the negative side of the ignition coil. This Remote start unit learns the tach rate of the vehicle and in most cases will operate properly from one multi coil unit pack regardless of the number of cylinders. If the vehicle has a single coil for each cylinder, it may be necessary to connect to one of the vehicle's electronic fuel injector wires for proper RPM signal.

#### 2) Empty Cavity, No Connection

#### 3) Black/Blue Wire: Pulsed Negative Output Before Start

The Black/Blue Wire will provide a 1 second 250 mA pulsed negative output 1 second before the remote start unit activates as well as when the transmitter is used to Unlock the system. Typical use for this output would be to disarm a factory theft deterrent system to prevent false triggering of the factory alarm when the remote start unit engages or when the transmitter is used to unlock the doors.

**NOTE:** This output can be selected to operate like the door unlock output as set in alarm feature setting #1 by selecting feature #17 of Bank 3 to "As Bank 2 Feat 1" door unlock pulse".

**4) Black/LT. Green Wire:** Pulsed Ground Output After Start

The Black/LT. Green Wire will provide a 1 second 250 mA pulsed ground output after the vehicle is started under control of the remote start unit. Typically this wire will be used to re-lock the vehicle doors if the doors unlock automatically when the factory antitheft system is disarmed.

**5) LT. Blue Wire:** Ground Output While Running Under Remote Start Control

This wire provides a 250mA ground output that becomes active 2 seconds before the Remote Start module initializes and remains grounded while the module is active plus an additional 1 second after the system turns off. In all of the applications described below, a relay will be required.

The LT. Blue Wire can be used to accommodate the following situations:

**A. Shock Sensor By Pass:**

**B. Additional Ignition Output:**

**C. GM VATS Key Override:**

**6) Green w/ Yellow Wire:** Diesel Wait To Start Input

The Green w/Yellow Wire, when connected to the wire that get +12 Volts during the glow plug preheat stage will delay the starter output until this wire drops the 12 Volts. In other words, in a Diesel vehicle with glow plug preheat circuit, when the ignition is turned on, the vehicle will not crank until the glow plugs are hot enough to fire the atomized fuel oil when injected into the cylinder. By connecting this wire to the glow plug +12 Volt wire, when the remote start unit activates the ignition one output, the glow plug output also activates. The remote start sees the Green/Yellow with positive voltage and waits for this to go inactive ( drop the 12 Volts) before activating the starter motor. If this wire is not used or you have difficulty accessing the glow plug preheat circuit, you may elect to utilize the Diesel timed output as specified in Remote Start feature selection Bank 3 Feature #11.

**NOTE:** If Green/Yellow is used, it will override or negate any setting of Bank 3 feature #11.

**7) Brown Wire:** Brake Positive Inhibit Input

The Brown Wire provides an instant shutdown for the Remote Start Control module whenever it gets +12 Volts. If the Brake lights switch in the vehicle switches +12 Volts to the brake light circuit, connect the Brown Wire to the output side of the brake switch. This will allow the Remote Start to shut down if an attempt is made to operate the vehicle without the key while running under the control of the Remote Start. In most vehicles, in order to shift into gear, the brake pedal must be depressed. The brake input will in turn cause the remote start unit to shut off.

**8) Gray Wire:** Negative Inhibit Input

The Gray Wire provides an instant shutdown for the Remote Start Control Module whenever it is grounded. Connect the Gray Wire to the hood pin switch previously installed.

This wire must be routed through a grommet in the firewall and connected to the hood pin switch. If the pin switch is to be used with an alarm system, connect this wire using a diode assembly.

**DO NOT RELEASE THIS VEHICLE TO THE CONSUMER UNTIL YOU CONFIRM THE OPERATION OF THE HOOD PIN SAFETY SHUT DOWN FEATURE.**



**IMPORTANT!** This connection is a safety wire and must be connected to a hood pin switch and tested as described. Failure to do so may result in personal injury or property damage. This wire may also be used if the vehicle brake light circuit switches ground to the brake lights. An isolation diode must be used for ground switched brake light circuits and must be connected to the output of the brake switch.

To test this circuit, while the vehicle is running under control of the remote start unit, open the vehicle's hood. The remote start unit should shut down immediately. If not, check the wiring to the control module and the under hood pin switch.

**DO NOT RELEASE THE VEHICLE TO THE CONSUMER IF THIS CIRCUIT DOES NOT PERFORM AS SPECIFIED.**

**9) Black/Red Wire: Pulsed Ground Output After Shutdown**

The Black/Red Wire will provide a 1 second 250 mA pulsed ground output after the remote start unit shuts down and the G.W.R. O/P turns off. This output will occur regardless of whether the circuit times out or is manually terminated. Typically this output will be used to re-lock the vehicle doors if the doors unlock automatically when the ignition circuit transitions to off.

**10) Black/Yellow Wire: Ground Output During Start (Crank)**

The Black/Yellow Wire will provide a 250 mA ground 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 outputs above are low current outputs and must be used with a relay if the circuit's requirement is more than 250 mA.

**4 Pin Main Harness, Connector (P/N 1124320)**

**1) Black Wire: Chassis Ground**

Connect the Black wire to a known vehicle ground source or to a solid clean metal part of the chassis. Be certain to remove any paint or grease and secure this wire with a self tapping screw and ring terminal.

**2) White w/ Red Wire: Parking Light Relay Input Wire**

This wire is the common contact of the on board parking light flasher relay. If the vehicle you are working on has +12 Volt switched parking lights, connect this wire to a fused +12 Volt source. (Max. 15 Amps)

**NOTE:** If the vehicle's parking lights are ground switched, connect this wire to chassis ground.

**3) Yellow w/ Black Wire: (+) Output To Alarm Ignition Input**

This is the positive output that will connect to an alarm system allowing the alarm to operate while under control of the remote start. This wire can connect to an existing alarm system, or if available to the factory alarm's ignition input.

**4) White Wire: Parking Light Relay Output**

This wire is the normally open contact of the on board parking light flash relay. Connect this wire to the vehicle's parking light feed wire. This is the wire that gets switched on, either (+) or (-), when the vehicle's parking light switch is activated.

**5 Wire Antenna Receiver Connector (P/N 1124318)**

Connect the mating end of the previously mounted receiver harness to the mating connector on the module. This harness will be the supply for the LED, Valet Switch as well as the RX & 5 VDC of the receiver.

**Programming Tach Rate:****NOTE: All applications require that tach be programmed.**

The unit will not operate unless tach is programmed. If an attempt is made to start the vehicle via the remote start without first programming tach, the unit will flash the parking lights 7 times indicating tach has not been learned and stored. If the tach rate is not properly programmed for the specific vehicle, the unit may not realize that the vehicle is running and in certain instances re-engage the starter motor.

The Remote Start Unit will learn the tach rate of most vehicle's single coil, multiple coil packs, or single injector. To learn tach:

1. Turn the ignition key to the On position.
2. Press and release the valet/program push button switch 3 times.
3. Immediately turn the ignition key Off.
4. Press and hold the valet/program push button switch, then start the vehicle using the key.
5. When the unit senses the tach signal, the parking lights will begin to flash.
6. Wait for at least 5 flashes.
7. Release the valet/program switch. The parking lights come on for three seconds to indicate that the learned tachometer signal is stored and the unit is out of the tachometer learn mode.

**NOTE:** If the unit fails to learn tach rate due to an improper tachometer connection or a poor tach source, the parking lights will not flash. To correct this situation, locate and connect the Green/Orange Wire to the proper tach signal, and then repeat the tach learn routine.

**PROGRAMMING BANK 1 (TRANSMITTERS):**

1. Turn the ignition key to the on position.
2. Press and release the valet/programming switch 3 times (lights flash once).
3. Press the Button of each transmitter you want programmed until the parking lights flash.
4. Turn the ignition switch off to exit the programming mode.

**PROGRAMMING BANK 2 (ALARM FEATURES):**

You can enter bank 2 from bank 1 by turning the ignition key off then on from step 4 of Bank 1, the lights will flash twice, or you can also go right to bank 2 by:

1. Turn the ignition key to the on position.
2. Press and release the valet/programming switch 3 times (Lights Flash Once).
3. Turn the ignition key off then on, (lights long flash).
4. Press the pushbutton switch once to advance to feature 1, twice to advance to feature 2, etc.,, then use the button of the transmitter to select the feature setting.

Example to set door lock output timing:

1. Turn the ignition key to the on position.
2. Press and release the valet/programming switch 3 times
3. Turn the ignition key off, then on,
4. Press the pushbutton switch once to advance to features 1, door unlock output timing then use the button of the transmitter to select your desired setting.
5. To exit the programming mode, turn the ignition key off. The parking lights flash upon exit.

### SELECTABLE FEATURES

The selectable features of this unit can be set manually as explained on the previous page.

Factory default settings are indicated by **BOLD** text below.

**NOTE:** Manual programming Keyless Entry Models with no horn output will Flash the Parking Lights instead of chirp where chirp is indicated. Also, no data will be indicated if a feature is not available for a particular model. The unit will enter the feature but no selection will be available.

Feature Selection	1 Chirp	2 Chirps	3 Chirps	4 Chirps	5 Chirps	6 Chirps
1st DoorL/UL	1S/1S	3.5 Sec.	500mS L, Dbl. U/L	Dbl L, 500mS UL	Dbl L, Dbl UL	500mS/350mS ul
2nd Accy Lock	<b>Not Available</b>					
3rd Accy. UL	<b>Not Available</b>					
4th Headlights	<b>Not Available</b>					
5th Passive Locks	<b>Not Available</b>					
6th Pass/Act Arm	<b>Not Available</b>					
7th Siren/Horn	<b>Not Available</b>					
8th Horn Chirp	<b>Not Available</b>					
9th O/R Method	<b>Not Available</b>					
10th 2 Step U/L	<b>Not Available</b>					
11th Chp Del Tx	<b>Not Available</b>					
12th Trigger Circuits	<b>Not Available</b>					
13th L/UL Poll	<b>Not Available</b>					
14th Aux Ch 5 Sel	<b>Not Available</b>					
15th Aux Ch 6 Sel	<b>Not Available</b>					
16th Aux Ch 7 Sel	<b>Not Available</b>					
17th Trigger Delay	<b>Not Available</b>					
18th DBI/ADS Select	<b>Not Available</b>					

### **PROGRAMMING BANK 3 (REMOTE START):**

You can enter Bank 3 from Bank 2 by turning the ignition key off then on after you have made the changes you wanted in Bank 2, (Pk. Lts flash twice). You can also go right to Bank 3 by:

1. Turn the ignition key to the on position.
2. Press and release the valet/programming switch 3 times (Lights flash once).
3. Turn the ignition key off then on (lights long flash).
4. Turn the ignition key off then on (lights 2 long flashes).
5. Press the pushbutton switch once to advance to feature 1, twice to advance to feature 2, etc.,,then use the transmitter button to select the feature setting.

Example to set engine input check to DBI Tach:

1. Turn the ignition key to the on position.
2. Press and release the valet/programming switch 3 times (lights flash).
3. Turn the ignition key off then on. (lights long flash)
4. Turn the ignition key off then on. (lights two long flash)
5. Press the pushbutton switch five times to advance to features 5, Input Check, then use the transmitter button to select three chirps, "DBI Tach"
6. To exit the programming mode, turn the ignition key off. The program mode is automatically exited when there is no activity on the pushbutton switch or the transmitter lock button.

### **TACH RATE PROGRAMMING:**

1. Turn the ignition key to the On position.
2. Press and release the valet/program push button switch 3 times.
3. Immediately turn the ignition key Off.
4. Press and hold the valet/program push button switch, then start the vehicle using the key.
5. When the unit senses the tach signal, the parking lights will begin to flash.
6. Release the valet/program pushbutton switch. The parking lights will turn on for three seconds to indicate that the learned tach signal is stored and the unit is out of the tach learn mode.

**NOTE:** If the unit fails to learn tach rate due to an improper tachometer connection or a poor tach source, the parking lights will not flash. To correct this situation, locate and connect the Green/Orange Wire to the proper tach signal, and then repeat the tach learn routine.

<b>RF Programmable Features Bank 3 Is Remote Start Selectable Features:</b>						
Feature Selection	1 Chirp	2 Chirps	3 Chirps	4 Chirps	5 Chirps	6 Chirps
1st Defrost Output	<b>Not Available</b>					
2nd RF Start Chirp	<b>Not Available</b>					
3rd Run Time	5 Mins	<b>10 Mins</b>	15 Mins	20 Mins	45 Mins	60 Mins
4th Parking Lights	<b>On Steady</b>	Flashing				
5th Input Check	Voltage	<b>Tach</b>	DBI Tach	Hybrid		
6th Voltage Level	<b>&gt;0.5V B4 Start</b>	< 0.5V B4 Start				
7th Ign. 2 Select	Off During Crank	<b>On During Crank</b> Same As Accy.				
8th Ign. 3 Select	<b>Not Available</b>					
9th Diagnostics	<b>Off</b> On					
10th Crank Time	0.8 Sec	<b>1.0 Sec</b>	1.5 Sec	2.0 Sec		
11th Gas/Diesel	<b>Gas</b>	Diesel 10	Diesel 15	Diesel 20		
12th Transponder O/P	<b>Not Available</b>					
13th Temp Start	<b>Not Available</b>					
14th Crank Averaging	<b>Averaging</b>	Preset Time				
	<b>Note:</b> When averaging, the engine must be started 4 times with the key to be effective.					
15th R/S Shock	<b>Not Available</b>					
16th Turbo Select	<b>Not Available</b>					
17th Black/Blue (Aux O/P)	<b>Single Pulse</b>	As Feat 1 Bank 2				
18th One or Two Press Start	<b>Two Press</b>	One Press				

**NOTE:** When feature #5 is set for Voltage or Hybrid, the unit must also have feature #14 set for Preset Time or the unit will flash the Pk. Lis. 7 times and not start.

**When using the RF programmer, enter the program mode as follows:**

1. Turn the ignition on.
  2. Press and release valet switch 3 times.
  3. Turn ignition off then on.
  4. Press and hold valet switch for 5 seconds.
- Siren chirps 2 times indicating access to RF feature program mode.

**Diagnostics:**

Enter Bank 3 and turn on selectable feature # 7 as described in the feature selection and setting section.

Exit the feature selection mode then press and hold the pushbutton valet/program switch and then turn the ignition switch to the on position.

**NOTE:** Diagnostic mode is a temporary mode. Once you have accessed the diagnostic mode, the unit will pause for two seconds then begin to flash the last stored shut down code. This code will be displayed three times in succession, then the unit will automatically exit the diagnostic mode.

The parking lights will flash a number of times indicating the reason for the last remote start shutdown. The light flash indications are as follows:

1 Flash	Run timer expired
2 Flashes	Low or no tach signal (RPM)
3 Flashes	Positive inhibit wire activation
5 Flashes	RF shutdown signal received, or manual start trigger wire reactivated.
6 Flashes	High tach signal (RPM)
7 Flashes	Tach signal has not been learned
8 Flashes	Negative inhibit wire activation

**4 PIN DATA BUS PORT (DBI Port)**

The 4 pin port located on the side of this module is for proprietary Audiovox data bus interface modules. These modules are used to access a variety of features in the vehicle which can be as simple as door trigger inputs, to more complex door lock outputs, or transponder interfaces for remote starting. DO NOT connect anything to this port other than the Audiovox DBI interface modules or damage to the Remote Start will occur. All installation instructions for the DBI modules will be packaged with the individual component along with the proper 4 pin wiring harness requires to access the data transmit & receive as well as the proper voltage levels for the interface.

**COMPLETING THE INSTALLATION:**

After you have confirmed the operation of the Remote Start unit and tested all the safety features of the system:

1. Mount the control module up and behind the dash securing it in place with cable ties or screws. Be certain that the chosen mounting location will not inhibit any of the controls of the vehicle.
2. Securely harness and tie all wiring up and away from all hot and moving parts that they may come in contact with under the dash board or in the engine compartment areas.

**CAUTION:** Particularly avoid the area around the steering shaft and column, as wires can wrap around these mechanisms and impair the safe operation of the vehicle.

3. Apply the Caution Labels supplied with this kit to a conspicuous area in the engine compartment. Make sure to clean the surface before affixing the label.
4. Check the vehicle's wipers, lights, horn, etc.... to insure proper operation.
5. Replace all panels that were removed during installation, and retest the system.
6. Explain all activated features and safety systems associated with Remote Start Unit installed to the customer.

