



## Model APS-25CH Installation Manual

**Note :** When both Passive Arming and Voltage Sensing are selected, you must hardwire the driver's door pin switch in order to begin the passive arming sequence.

### RF Programmable Features :

Feature Selection	1 Chirp	2 Chirps	3 Chirps	4 Chirps	Default
1st Door L/UL	1 Sec.	3.5 Sec.	1 Sec L, Dbl. U/L		1 Sec.
2nd Accy Lock	Auto Lock On	Auto Lock Off			Auto Lock Off
3rd Accy. UL	Auto UL On	Auto UL Off			Auto UL Off
4th Passive Locks	Passive	Active			Active
5th Passive/Active Arm	Passive Arm	Active Arm			Active Arm
6th Voltage Sense	Voltage Sense	Hardwire			Hardwire

### To program these selectable features;

	Action	System Response
<u>First</u>	Turn ignition on	No response
	Press and release the valet switch 3 times Within 3 seconds, turn ignition Off Then On	1 Chirp - LED 1 flash Short chirp, then long chirp 1 chirp = 1 second door locks
<u>Second</u>	Press transmitter Lock button to change	2 chirps = 3.5 second door locks
	Press transmitter Lock button to change <b>or</b>	3 chirps = 1 sec. lock, dbl 1 sec. unlock
<u>Third</u>	Press and release the valet switch	2 chirps = auto locks off
	Press transmitter Lock button to change <b>or</b>	1 chirp = auto locks on
<u>Fourth</u>	Press and release the valet switch	2 chirps = auto unlock off
	Press transmitter Lock button to change <b>or</b>	1 chirp = auto unlock on.
<u>Fifth</u>	Press and release the valet switch	2 chirps = active locks
	Press transmitter Lock button to change <b>or</b>	1 chirp = passive locks
<u>Sixth</u>	Press and release the valet switch	2 chirps = active arming
	Press transmitter Lock button to change <b>or</b>	1 chirp = passive arming
	Press and release the valet switch	2 chirps = hardwire
	Press transmitter Lock button to change <b>or</b>	1 chirp = voltage sense
	Turn ignition key off	Exit program mode

**Note:** Once you enter the feature programming mode, do not allow more than 30 seconds to pass between steps, or the programming will be terminated.

**CHANNEL 2 OUTPUT:**

This system provides an additional hardwire remote output to control an assortment of optional upgrades. This output is an independent channel from the transmitter and is controlled by button #2 or the combination of button 1 & 2 dependent on the programming of the transmitter as set up by your installation center. It is a delayed ground pulse (300 mA maximum) and can be used to control:

- Optional trunk release relay AS-9256
- Optional remote starter AS-9075

**INSTALLATION OF MAJOR COMPONENTS:****CONTROL MODULE:**

Select a mounting location inside the passenger compartment (up behind the dash) and secure using two screws provided.

The control module can also be secured in place using cable ties.

**Do not** mount the control module in the engine compartment, as it is not waterproof. You should also avoid mounting the unit directly onto factory installed electronic components. These components may cause RF interference, which can result in poor transmitter range or intermittent operation.

**SIREN:**

Select a mounting location in the engine compartment that is well protected from access below the vehicle. Avoid areas near high heat components or moving parts within the engine compartment. To prevent water retention, the flared, or opened end, of the siren must be pointed downward when mounted. Mount the siren to the selected location using the screws and bracket provided.

**HOOD OR TRUNK PIN SWITCH:**

A pin switch is included for use in protecting the hood or trunk (or hatchback) of the vehicle.

The switch must always be mounted to a grounded, metal surface of the vehicle. It is important to select a location where water cannot flow or collect and to avoid all drip "gutters" on hood and trunk fender walls. Choose locations that are protected by rubber gaskets when the hood or trunk lid is closed.

The pin switch can be mounted using the bracket provided or direct mounted by drilling a 9/32" diameter mounting hole.

Keep in mind that when properly mounted, the plunger of the pin switch should depress at least 1/4" when the hood or trunk lid is closed.

**DASH MOUNTED LED:**

A small red LED is included that will serve as a visual indicator of the alarm status. It should be installed in the dash, located where it can be easily seen from outside the vehicle, yet not be distracting to the driver.

Once a location has been selected, check behind the panel for wire routing access and to confirm the drill will not damage any existing components as it passes through the panel.

Drill a 1/4" diameter hole and pass the red and blue wires from the LED through the hole, from the front of the panel. Firmly press the body of the LED into the hole until fully seated.

**SHOCK SENSOR:**

Select a solid mounting surface for the shock sensor on the firewall inside the passenger compartment and mount the sensor using the two screws provided. The shock sensor can also be secured to any fixed brace behind the dash using tie straps.

Whichever mounting method is selected, make certain that the sensitivity adjustment is accessible for use later in the installation.

**VALET SWITCH:**

Select a desired mounting location for the switch, that is easily accessible to the driver of the vehicle. The switch does not have to be concealed, however, concealing the switch is always recommended, as this provides an even higher level of security to the vehicle. The switch may be mounted in or below the dash by drilling a 1/4" diameter hole in the location. Be sure to check behind the dash for adequate clearance for the body of the switch, and to confirm that the drill will not damage any existing components as it passes through the dash. Route the connector and wires toward the module and plug the connector into the appropriate connector on the module.

**WIRING THE SYSTEM:****WHITE WIRE: + 12 VDC PULSED PARKING LIGHT OUTPUT ( 15 A MAX )**

This wire is provided to flash the vehicle's parking lights. Connect the white wire to the positive side of one of the vehicle's parking lights.

**RED FUSED WIRE - (VOLTAGE SENSING): + 12 VDC CONSTANT BATTERY SOURCE**

This wire controls the sensitivity of the voltage sensing circuit, which detects the turning on of an interior light when a door is opened. It will also detect the switching on of parking or headlamps, and in many cases will trigger the alarm when a thermostatically controlled electronic radiator cooling fan switches on. It is recommended that when installing this system into vehicles with electronic "after fans", the procedure for **RED FUSED WIRE - (HARDWIRE)** should be followed.

In voltage sensing applications, the closer to the battery that the red wire is connected, the less sensitive the voltage sense circuitry will be. Moving this connection point to the fuse panel will increase the sensitivity and connecting to the courtesy lamp fuse in the vehicle will provide maximum sensitivity of the voltage sense circuit.

**RED FUSED WIRE - (HARDWIRE): + 12 VDC CONSTANT BATTERY SOURCE**

When hardwiring the control module to pin switches at all entry points, the voltage sense circuit must be disabled. Set programming feature # 6 to the "OFF" position. Connect the red wire to a + 12 VDC constant battery source.

**DARK BLUE WIRE: 300 mA PULSED OUTPUT/CHANNEL 2**

The dark blue wire pulses to ground via an independent RF channel from the keychain transmitter. This is a transistorized, low current output, and should only be used to drive an external relay coil.

**WARNING: Connecting the dark blue wire to the high current switched output of trunk release circuits or some remote starter trigger inputs, will damage the control module.**

Connect the dark blue wire to terminal 86 of the AS-9256 relay (or equivalent 30 A automotive relay) and wire the remaining relay contacts to perform the selected function of channel 2.

**WHITE w/BLACK TRACE WIRE: POSITIVE OUTPUT TO SIREN**

Route this wire through a rubber grommet in the firewall to the siren location. Connect the white/black wire to the positive wire of the siren. Secure the black ground wire of the siren to chassis ground.

**BLACK WIRE: CHASSIS GROUND**

Connect this wire to a solid, metal part of the vehicle's chassis. Do not confuse this wire with the thin black antenna wire that exits the control module independently.

**YELLOW WIRE: + 12 VDC IGNITION SOURCE**

Connect this wire to a source that supplies 12 VDC when the ignition key is in the ON and CRANK positions and off when the key is in the OFF position.

**DARK GREEN WIRE: (-) INSTANT TRIGGER**

This is an instant on ground trigger wire. It must be connected to the previously installed hood and trunk pin switches.

**BROWN WIRE: - DOOR TRIGGER**

If the vehicle's door courtesy light switches have a - ground output when the door is opened ( GM and most Imports ) you must connect this wire to the negative output from one of the door switches. In most cases, the brown wire will only need to be connected to one door switch, no matter how many doors the vehicle has.

**WARNING: Do not use the brown wire if the vehicle has + 12 Volt output type door switches. (see PURPLE WIRE)**

Note for vehicles with interior delay lighting see programming under title "Completing The Installation".

**PURPLE WIRE: + DOOR TRIGGER**

If the vehicle's door courtesy light switches have a + 12 volt output when the door is opened ( most Fords and some Imports), you must connect this wire to the positive output from one of the door switches. In most cases, the purple wire will only need to be connected to one door switch, no matter how many doors the vehicle has.

**WARNING: Do not use the purple wire if the vehicle has ground output type door switches. (see BROWN WIRE)**

Note for vehicles with interior delay lighting see programming under title "Completing The Installation".

**ORANGE WIRE: GROUND OUTPUT WHEN ARMED**

This wire is provided to control the starter cut relay. Connect the orange wire to terminal 86 of the relay and wire the remaining relay contacts as shown in the wiring diagram.

**IMPORTANT: Audiovox does not recommend using this relay to interrupt the ignition wire. Only connect this relay to the low current starter solenoid feed wire, as indicated on the wiring diagram.**

**GREY & BLACK 2 PIN (blue) CONNECTOR: VALET SWITCH**

If you have not done so already, route the two conductor, blue connector from the previously installed valet switch to the alarm control module and plug it into the mating blue connector on the end of the module.

**RED & BLUE WIRES: DASH MOUNTED LED**

Route the two conductor, white connector (red and blue wires) from the previously installed LED to the alarm control module and plug it into the mating white connector on the end of the module.

**RED & GREEN 2 PIN (white) CONNECTOR: DOOR LOCK OUTPUTS**

These wires will provide a pulsed ground output to the factory door lock control relay. The maximum current draw through these outputs must not exceed 300 mA.

**3 Wire Ground Switched Door Locks**

In this application, the **red wire** provides a ground pulse during arming (**pulsed ground lock**) output. Connect the red wire to the wire that provides a low current ground signal from the factory door lock switch to the factory door lock control relay.

The **green wire** provides a ground pulse during disarming (**pulsed ground unlock**) output. Connect the green wire to the wire that provides a low current ground signal from the factory door unlock switch to the factory door lock control relay.

### **3 Wire Positive Switched Door Locks**

In this application, the **red wire** provides a positive pulse during disarming (**pulsed + 12 volt unlock**) output. Connect the red wire to the wire that provides a low current positive signal from the factory door unlock switch to the factory door lock control relay.

The **green wire** provides a positive pulse during arming (**pulsed + 12 volt lock**) output. Connect the green wire to the wire that provides a low current positive signal from the factory door lock switch to the factory door lock control relay.

### **Resistive Circuits, As Well As 4 Wire Polarity Reversal and 5 Wire Alternating 12 Volt Door Lock Control Circuits**

These applications require the use of additional components which may include relays, fixed resistors, or for convenience, the AS 9159 Door Lock Interface. Refer to the AUDIOVOX Door Lock Wiring Supplement and or the Audiovox fax back service for information on your particular vehicle for properly connecting to these types of circuits.

### **COMPLETING THE INSTALLATION**

**NOTE:** This unit has the ability to learn the dome light delay time, up to 60 seconds. If the vehicle has delay interior lights, and you wish to avoid three chirp, defect zone, indication normally associated with this type of interior light, we suggest you learn the interior light delay.

To learn the light delay, start with all doors closed:

(1) Use the transmitter to Lock / Unlock / Lock / Unlock / Lock / Unlock / Lock, the system.

The LED turns on solid to confirm the system entered the learn mode.

(2) Immediately open and close the door of the vehicle to initiate the dome delay.

The unit will monitor the door trigger input Positive, (Purple), and Negative, (Brown) when active.

When the dome light turns off, the unit will add 2 seconds then exit the learn mode.

(3) The LED will begin flashing the Armed indication indicating the unit has exited the learn mode and is armed

**Antenna Wire :** Be sure to extend the thin black antenna wire to it's full length and cable tie into place where it cannot be damaged. Avoid wrapping this wire around major, high current wire looms.

**Adjusting the Shock Sensor :** The sensitivity of the pre - detect circuit, where used, is automatically set 30% less sensitive than the full trigger circuit.

Using a small screwdriver, gently turn the adjustment screw fully counterclockwise. ( DO NOT over turn this screw. Maximum rotation for this adjustment is 270° ). Close the hood and trunk lids, and arm the alarm. Wait 6 seconds for the accessories trigger zone to stabilize, then firmly strike the rear bumper with the side of a closed fist considering the amount of force required to break a window.

**CAUTION : Never perform this test on the vehicle's glass, as you may break the window.**

Turn the adjustment screw clockwise ( increasing sensitivity ) about ¼ turn and re-test. Repeat this procedure until the alarm sounds. Ultimately, one firm strike to the rear bumper will cause the alarm to emit pre - detect warning tones.

**WARNING !** Setting the sensitivity too high can cause false alarms due to noise vibrations from passing trucks and heavy equipment. To decrease sensitivity, turn the adjustment screw counter clockwise.

**Wire Dressing :** Always wrap the alarm wires in convoluted tubing, or with a spiral wrap of electrical tape. Secure these looms along the routing using cable ties. This will ensure that the alarm wires are not damaged by falling onto hot or sharp moving surfaces in the vehicle.

**Operation :** Take a few moments to check off the appropriate option boxes in the owner's manual and to fully explain the operation of the system to your customer.

Place the Valet Switch Tag and or the Remote Start Control Switch Tag on their respective switches and point these out to the customer.

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