

# **CODE ALARM**

## **PROFESSIONAL SERIES**

### **Security and Keyless Entry Installation Guide**

**ca1153**

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## **BEFORE YOU BEGIN**

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

#### ***Installation Precautions:***



Roll down window to avoid locking keys in vehicle during installation



Avoid mounting components or routing wires near hot surfaces



Avoid mounting components or routing wires near moving parts



Tape or loom wires under hood for protection and appearance



Use grommets when routing wires through metal surfaces



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 vehicle computers.



**Technical Support (800) 421-3209**  
or go to  
<http://techservices.codesystems.com>

## 6 Pin Main Harness

6 PIN MAIN	1	WHITE	PARKING LIGHT OUTPUT
	2	WHITE/RED	PARKING LIGHT INPUT
	3	WHITE	PARKING LIGHT OUTPUT
	4	BLACK	GROUND
	5	BROWN	SIREN OUTPUT ( + )
	6	RED	BATTERY 12V ( + )

## 6 Pin Input / Output Harness

6 PIN INPUT / OUTPUT	1	PURPLE	DOOR TRIGGER INPUT ( + )
	2	GRAY	HOOD PIN INPUT ( - )
	3	GREEN	DOOR TRIGGER INPUT ( - )
	4	YELLOW	IGNITION INPUT ( + )
	5	ORANGE	GROUND WHEN ARMED OUTPUT ( - )
	6	RED/WHITE	TRUNK RELEASE OUTPUT ( - )

## 3 Pin AUX Output Harness

3 PIN AUX	1	VIOLET/BLACK	AUX 1 ( - )
	2	GREEN/BLACK	FACTORY DISARM OUTPUT ( - )
	3	BROWN/BLACK	HORN OUTPUT ( - )

## 6 Pin Door Lock Output Harness

6 PIN DOOR LOCK	1	BROWN/BLACK	UNLOCK SWITCH ( 87A )
	2	BLUE/BLACK	UNLOCK MOTOR ( 30 )
	3	VIOLET/BLACK	UNLOCK POLARITY ( 87 )
	4	WHITE/BLACK	LOCK SWITCH ( 87A )
	5	GREEN/BLACK	LOCK MOTOR ( 30 )
	6	VIOLET	LOCK POLARITY ( 87 )

## 6 Pin Main Harness

1	WHITE	PARKING LIGHT OUTPUT
2	WHITE/RED	PARKING LIGHT INPUT
3	WHITE	PARKING LIGHT OUTPUT

Locate the parking light output wire at the vehicle's light switch.

*Verification:* This wire registers positive voltage when the parking lights are turned on.

Positive switching Parking Lights:

Connect the WHITE/RED wire to a 15 Amp max fused battery source.

Connect the WHITE wire to the parking light output wire.

Negative switching Parking Lights:

Connect the WHITE/RED wire to a good chassis ground.

Connect the WHITE wire to the parking light output wire.

4	BLACK	GROUND
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Connect the BLACK wire to a solid chassis ground point using a ring terminal and self tapping screw (not supplied). Scrape away paint from the grounding point to ensure a good connection. The recommended grounding point is a metal surface in the driver's side kick panel area.

**NOTE:** Do not ground the BLACK wire with any other vehicle components.

5	BROWN	SIREN OUTPUT (+)
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Locate a suitable mounting location in the engine compartment for the siren, away from moving parts.

With the bell of the siren aiming downwards, secure the siren in place using self tapping screws, being careful not to drill into any hoses, wiring or components.

Connect the BLACK siren wire to a chassis ground using a ring terminal and self tapping screw (not supplied).

Route the BROWN siren output wire from the control module through the firewall and connect to the RED wire on the siren.

**NOTE:** Be sure to loom the siren wires, and seal the grommet.

6 RED

BATTERY 12V ( + )

Locate 1 of the vehicle's constant 12 Volt battery wires at the ignition switch.

*Verification:* This wire will register ( + ) voltage in all positions of the ignition switch.

Connect the RED wire to the constant 12 Volt battery wire.

**NOTE:** Remove all fuses until all connections are made.

## 6 Pin Input / Output Harness

1 PURPLE

DOOR TRIGGER INPUT ( + )

Locate the vehicle's dome light or door pin switch wire.

*Verification:* This wire will register positive voltage (POS) when the door is opened and the interior light is on. This wire will register ground or "0" Volts when the door is closed and the interior light is off.

Connect the PURPLE wire to the vehicle's positive door input wire(s).

**NOTE:** Certain vehicles may require multiple connections. Refer to vehicle application guide

2 GRAY

HOOD PIN INPUT ( - )

Install a Hood Pin Switch and connect to the GRAY wire.

*Verification:* This wire when connected will register ground when the vehicle's hood is opened.

Connect the GRAY wire to the hood pin.

**NOTE:** Be sure to loom the wire, and seal the grommet.

3 GREEN

DOOR TRIGGER INPUT (-)

Locate the vehicle's dome light or door pin switch wire.

*Verification:* This wire will register ground (NEG) when the door is opened and the interior light is on. This wire will register positive voltage when the door is closed and the interior light is off.

Connect the GREEN wire to the vehicle's negative door input wire(s).

**NOTE:** Certain vehicles may require multiple connections. Refer to vehicle application guide

4 YELLOW

IGNITION INPUT (+)

Locate the vehicle's ignition wire at the ignition switch.

*Verification:* This wire registers voltage when the key is turned to the ON (or RUN) position. The voltage does not drop out when the key is turned to the START (or CRANK) position.

Connect the YELLOW wire to the vehicle's Ignition wire.

5 ORANGE

GROUND WHEN ARMED OUTPUT (-)

This wire will have a continuous (-) 300mA output when the system is Armed. This wire is typically used for controlling window modules or additional sensors.

6 REDWHITE

TRUNK RELEASE OUTPUT (-)

Locate the vehicle's trunk release wire at the trunk release switch.

*Verification:* This wire will register either positive voltage or ground when the trunk release is activated.

This is a low current output, 300mA.

## 3 Pin AUX Output Harness

1	VIOLET/BLACK	AUX 1 OUTPUT (-)
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This wire provides a ( - ) 300mA output capable of driving relays. For Control of optional accessories (i.e. Power Window/Sunroof, etc.).

To activate refer to the transmitter button configuration chart. Please refer to the selectable options for timing.

2	GREEN/BLACK	FACTORY DISARM (-)
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This wire will supply a ( - ) 300mA pulse both upon disarming the system and when the trunk release feature is activated. Locate the factory perimeter alarm disarm wire from the key cylinder inside the drivers door.

*Verification:* This wire registers ground if the key is turned to the unlock position in the driver's door cylinder.

Connect the GREEN/BLACK wire to the factory alarm disarm wire.

3	BROWN/BLACK	HORN OUTPUT (-)
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Locate the vehicle's horn wire.

*Verification:* This wire will register at positive voltage and register ground when the horn switch is pressed.

Connect the BROWN/BLACK wire to the vehicle's horn wire. This is a low current output, 300mA.



## 6 Pin Door Lock Output Harness

1	BROWN/BLACK	UNLOCK SWITCH ( 87A )
2	BLUE/BLACK	UNLOCK MOTOR ( 30 )
3	VIOLET/BLACK	UNLOCK POLARITY ( 87 )
4	WHITE/BLACK	LOCK SWITCH ( 87A )
5	GREEN/BLACK	LOCK MOTOR ( 30 )
6	VIOLET	LOCK POLARITY ( 87 )

The door lock / unlock outputs are designed to control several different types of systems which may require additional parts.

### 3 Wire Ground Switched Door Locks:

Connect the GREEN/BLACK wire to the wire that provides a ground signal from the factory door lock switch to the factory door lock control relay.

Connect the BLUE/BLACK wire to the wire that provides a ground signal from the factory door unlock switch to the factory door lock control relay.

Connect the VIOLET and the VIOLET/BLACK wires to a solid chassis ground point. The WHITE/BLACK and BROWN/BLACK wires are not required for this type of door lock/unlock system.

### 3 Wire Positive Switched Door Locks:

Connect the GREEN/BLACK wire to the wire that provides a +12 volt signal from the factory door lock switch to the factory door lock control relay.

Connect the BLUE/BLACK wire to the wire that provides a +12 volt signal from the factory door unlock switch to the factory door lock control relay.

Connect the VIOLET and the VIOLET/BLACK wires to a +12 volt battery source. The WHITE/BLACK and BROWN/BLACK wires are not required for this type of door lock/unlock system.

## Additional Ports

### LED Port

The LED included in the kit will serve as a visual indicator of the alarm's 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" 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 LED into the hole until fully seated.

### Programming / Valet Button Port

Select a mounting location that is within reach of the ignition switch, as this switch in combination with the ignition switch, will be used to program the certain features of the system. It is suggested that the switch be mounted to the lower dash panel in the driver's area within reach of the driver.

### Shock Sensor Port

Select a solid mounting surface for the shock sensor inside the passenger compartment (behind the dash), and mount the sensor using cable ties, making sure to allow access to the sensitivity adjustment for use later in the installation.

### Data Bus Interface Port

This 4 pin port is used for Flashlogic Door Lock and Transponder Databus Interfaces to communicate with the vehicle's Databus. When using the DBI port to control the Flashlogic Door Lock and Transponder Interface modules the following options may be available. Please refer to the D2D (Data to Data) function list available per vehicle on the tech service web site.

Door Trigger

Trunk/Hatch Open

Door Lock Control

Dome Light Supervision

Factory Alarm Arm / Disarm

Manual Arm / Disarm Inputs (factory keyless controls system)

## Set Up & Programming

### Transmitter Programming - Feature Bank 1



1. Turn the ignition ON.
2. Press and hold the valet/override button.
3. Within 10 seconds the system will chirp (3) three times.
4. Press 1 button of each transmitter you wish to program.
5. The system will respond with 1 chirp for each accepted transmitter.
6. Pressing the override button at anytime during programming will advance to the next bank.


**NOTE:** The system will exit transmitter programming after 15 seconds of inactivity.

**NOTE:** This system has 1 button programming which programs all channels of the system.

**NOTE:** The system will hold up to 4 transmitters in memory, programming a 5th transmitter will erase the oldest transmitter in memory.

### Manual Feature Programming - Feature Bank 2 & 3

1. Turn the ignition ON.
2. Press and hold the valet/override button.
3. Within 10 seconds the system will chirp (3) three times.
4. Use the valet/override button to advance through each option bank. For feature programming advance to Feature Bank 2 or 3, which is (4) four or (5) five chirps.
5. Use the transmitter  button to scroll through the selections in each feature bank, the system will chirp to match the feature number.
6. Press the transmitter  button to change the desired feature. The LED will flash indicating the changed feature.

**Defaulting All Features:** Pressing the  button anytime while in any of the feature banks will default all features and return you to feature bank 2 - 4 chirps.

**NOTE:** The system will remain in feature programming mode as long as the ignition is on, there is no time limit. To exit programming turn the IGNITION OFF.

<b>Feature Bank 1 - 3 Chirps Transmitter Programming</b>
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Refer to transmitter programming.

	<b>Feature Bank 2 - 4 Chirps Security Control</b>	<b>1 LED Flash</b>	<b>2 LED Flash</b>	<b>3 LED Flash</b>	<b>4 LED Flash</b>	<b>5 LED Flash</b>
1	Silent Choice	ON	OFF			
2	Passive Locks	Active	Passive			
3	Passive Arming	Active	Passive			
4	Siren / Horn ARM/DISARM Chirps	Siren /Horn	Siren	Horn		
5	Siren Duration	30 Seconds	60 Seconds			
6	Security	ON	OFF			
7	Anti-Hijack Mode	OFF	ON			
8	Orange - Ground w/ Armed Output	Ground While Armed	Ground While Disarmed			
9	DBI Port Protocol	DBI Protocol	ADS Protocol			
10	Arm/Disarm Chirp / Parking Light Pattern	Standard: 2 - Arm 1 - Disarm	Inverted: 1 - Arm 2 - Disarm			

	<b>Feature Bank 3 - 5 Chirps Output Control</b>	<b>1 LED Flash</b>	<b>2 LED Flash</b>	<b>3 LED Flash</b>	<b>4 LED Flash</b>	<b>5 LED Flash</b>
1	Extended Lock Pulse	<b>1 Second</b>	3.5 Seconds	1 Second Lock, Double Pulse Unlock	30 Second Lock, Double Pulse Unlock	Double Pulse Lock, 1 Second Unlock
2	Factory Disarm	<b>Factory Disarm</b>	2nd Unlock			
3	Ignition Controlled Locks	<b>OFF</b>	Lock and Unlock	Lock Only	Unlock Only	
4	Trunk Output Timing Red / White Output	<b>Push and Hold</b>	10 Seconds	20 Seconds	Latched until IGN ON	Latched ON until Button Press
5	Horn Output Timing	<b>16mS</b>	10mS	30mS	40mS	50mS
6	Real Panic	<b>ON</b>	OFF			
7	AUX 1 Violet / Black Output	<b>Push and Hold</b>	Latched	Latched until IGN ON	Dome Light Output	

### Adjusting the Shock Sensor

1. Increase sensitivity by turning the adjustment dial clockwise.
2. Decrease sensitivity by turning the adjustment dial counter clockwise.

### Testing the Shock Sensor

Arm the system and wait 6 seconds for the zone to stabilize, then firmly strike the vehicles bumper.

### Chirp Delete - User Accessible

System ARM/DISARM chirps can be toggled ON or OFF without entering the programming feature banks.

1. Turn the ignition ON then OFF.
2. Press and release the valet/programming button 3 times. The system will respond with 1 chirp for ON or 2 chirps for OFF.

## Dome Light Delay / Theater Dimming

The system can be programmed to delay arming after the lock button is pressed (60 second max) for vehicles with a dome light delay or theater dimming feature. Once programmed the system will 'learn' the timing of the dome light delay and add 2 seconds before arming.

1. Close all doors with ignition off.
2. Using the transmitter press LOCK, UNLOCK, LOCK, UNLOCK, LOCK, UNLOCK, LOCK. The LED will light solid to indicate the system has entered DOME DELAY LEARN MODE.
3. Immediately OPEN then CLOSE the door WITHOUT disarming the system. The system will then monitor the door trigger wire. Once the dome light turns off, the system will then add 2 seconds and then exit the learning mode.
4. The LED will begin to flash indicating the system has exited the learning mode and is now armed.

## Feature Descriptions

### Feature Bank 2 - Security

**1 - Silent Choice:** Controls the normal arm/disarm chirps of the security system.

ON - Silent arming/disarming upon first press of lock/unlock, pressing lock/unlock a second time will activate the arm/disarm chirps respectively. The system will only sound the arm/disarm chirps upon a second press of the lock/unlock buttons.

OFF - normal arm/disarm chirps upon the first press of lock/unlock.

**2 - Passive Locks:** Determines manual or automatic locking of the vehicle's doors.

Active - Requires use of the transmitter to lock the vehicle's doors.

Passive - Automatically locks the vehicle's doors 1 minute after the last door is closed

**3 - Passive Arming:** Determines manual or automatic locking of the vehicle's doors.

Active - Requires use of the transmitter to arm the security system.

Passive - Automatically arms the security system 1 minute after the last door is closed

**4 - Siren / Horn:** This feature selects which output(s) will sound the system's arm/disarm chirps. This feature does not effect the triggered state of the security system and during a triggered cycle, both the siren and horn outputs will activate respectively.

**5 - Siren Duration:** Determines the length of time the system will sound the siren/horn during a full trigger event.

**6 - Security:** Controls security functionality - ON / OFF.

ON - Full security functionality.

OFF - The security system does not trigger. Panic and all other convenience features operate as normal.

**7 - Anti-Hijack Mode:** Controls Car Jack mode - ON / OFF.

OFF - Standard security system operation.

ON - Enables Car Jack mode functionality as described in the owners manual

**8 - Ground While Armed / Orange Output:** Controls the output of the orange wire. This wire will either supply a ( - ) output when armed OR disarmed.

**9 - DBI Port Protocol:** Determines the protocol type in which the DBI port uses to interface with external modules.

DBI Protocol

ADS Protocol

**10 - Arm/Disarm Chirp / Parking Light Pattern:** Determines the number of chirps and parking light flashes when the system is armed/disarmed.

Standard - 2 chirps/light flashes with arm, 1 chirp/light flash with disarm.

Inverted - 1 chirp/light flash with arm, 2 chirps/light flashes with disarm.

## Feature Bank 3 - Output Control

**1 - Extended Lock Pulse:** Controls the timing of the BLUE and GREEN lock output wires.

1 Second - Single 1 second lock pulse, single 1 second unlock pulse.

3.5 Seconds - Single 3.5 second lock pulse, single 3.5 second unlock pulse.

1 Second Lock, Double Pulse Unlock - Single 1 second lock pulse, double 1 second unlock pulse.

30 Second Lock, Double Pulse Unlock - Single 30 second lock pulse, double 1 second unlock pulse.

Double Pulse Lock, 1 Second Unlock - Double 1 second lock pulse, single 1 second unlock pulse.

**2 - Factory Disarm:** Controls the timing of the LT. GREEN/BLACK factory disarm output.

Factory Disarm - Single 1 second pulse with unlock and remote start activation.

2nd Unlock - Same output as unlock with 2nd press of unlock only.

**3 - Ignition Controlled Locks:** Control of door locks when the ignition is cycled ON or OFF.

OFF - Door locks not activated by ignition.

Lock and Unlock - Doors lock when ignition is turned on and unlock when ignition is turned off.

Lock Only - Doors lock when ignition is turned on.

Unlock Only - Doors unlock when ignition is turned off.

**4 - Trunk Output Timing - Red/White Output:** Control of the RED/WHITE trunk release output wire when trunk release is activated from the transmitter.

Push and Hold - Output is continuously active until transmitter button is released.

10 Seconds - Output stays active for 10 seconds regardless of length button press on transmitter.

20 Seconds - Output stays active for 20 seconds regardless of length button press on transmitter.

Latched until IGN ON - Output stays active until the ignition is turned on.

Latched ON until Button Press - Output stays active until deactivated by transmitter.



**5 - Horn Output Timing:** Control the minimum horn pulse time in milli seconds, some vehicle will require a longer pulse to activate the factory horn.

16mS    10mS    30mS    40mS    50mS

**6 - Real Panic:** Controls the panic out when triggered from the transmitter.

ON - Randomized horn honks when panic is triggered.

OFF - Standard pattern horn honks when panic is triggered.

**7 - AUX 1 - Violet/Black Output:** Controls the VIOLET/BLACK AUX 1 output activation type and timing.

Push and Hold - Output is continuously active until transmitter button is released.

Latched - Output stays active until button is pressed again.

Latched until IGN ON - Output stays active until the ignition is turned on.

Dome Light Output - Output is used for illuminated entry and is not controlled by the AUX 1 function of the transmitter.

## Transmitter Button Functions

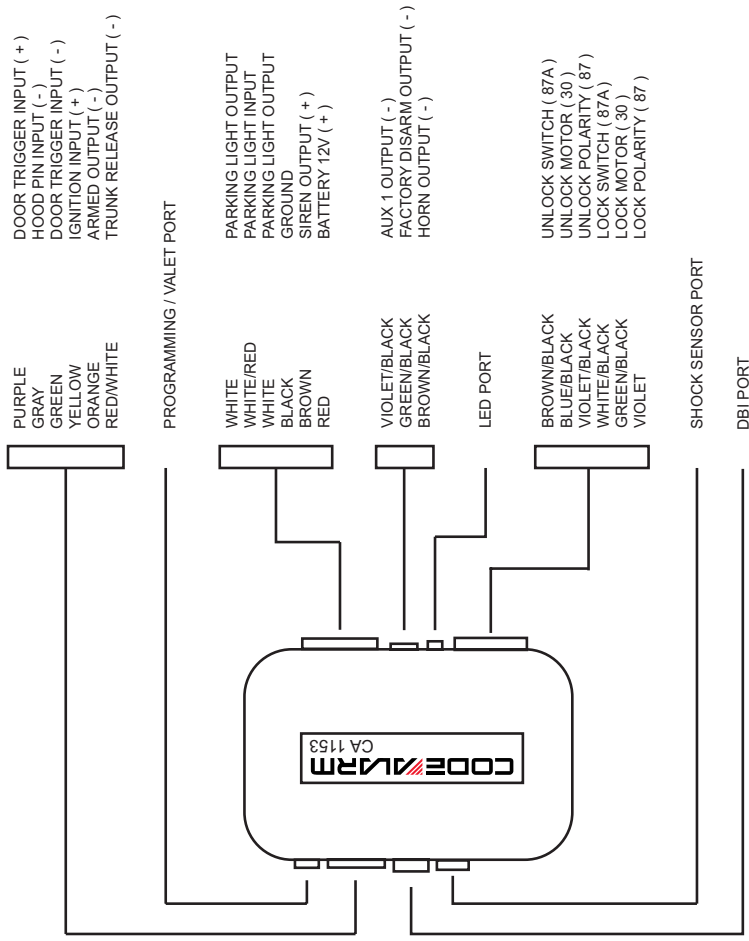
	Lock	Unlock	Car Find / Panic	Trunk		Operation Method
Lock	X					Press and Release
Unlock		X				Press and Release
Trunk				X		Push and Hold (3 Sec)
Car Finder			X			Press and Release
Panic			X			Push and Hold (3 Sec)
AUX 1	X	X				Push and Hold (3 Sec)
Shock Bypass	X		X			Press and Release Lock then Press Lock + Car Find

## Security Trigger Zones

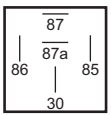
If the security system has been triggered the LED will flash one of the patterns below indicating the zone.

### LED FLASHES TRIGGER ZONE

2 Flashes	Hood / Trunk Input
3 Flashes	Door Input
4 Flashes	Shock Sensor
5 Flashes	Ignition Input



STARTER INTERRUPT RELAY



- |               |                                   |
|---------------|-----------------------------------|
| ORANGE        | 86 - ARMED OUTPUT (-)             |
| RED           | 85 - IGNITION (+)                 |
| BLACK         | 87A - STARTER OUTPUT - MOTOR SIDE |
| WHITE / BLACK | 30 - STARTER INPUT - KEY SIDE     |
| OPEN          | 87 - OPEN                         |

Audiovox Electronics Corporation.  
Customer Service 1-800-421-3209  
WWW.CODE-ALARM.COM

**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.