

CA-330

Installation Instructions

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 voltmeter for testing and verifying circuits



Technical Support

For Authorized Dealers - (800) 421-3209

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.

IMPORTANT!!!

**The module *MUST* be programmed before it will operate.
Refer to the programming instructions on pages 8-13.**

System Layout CA-330™

OEM Security Upgrade

A = Advanced Harness (16 pin) **Not Used On CA-330**

B = Basic Harness (24 pin)

C= Car Start Harness (10 pin) **Not Used On CA-330**

Note: The wire connection sections will identify each wire with a number (pin cavity) and a letter (harness), i.e.: 20/B = Wire 20, B (Basic) Harness.

View from wire end:

1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6		
10	11	12	13			14	15	16	13	14	15	16	17	18			19	20	21	22	23	24	7	8			9	10

Advanced Harness	Basic Harness	Car Start Harness
1. Unused	1. Parking Light Output (WHITE)	1. Unused
2. Unused	2. Lock Motor Output (BLUE)	2. Unused
3. Unused	3. Unused	3. Unused
4. Unused	4. Battery (+12v) (RED)	4. Unused
5. Unused	5. Ground (BLACK)	5. Unused
6. Unused	6. Starter Key (+) (VIOLET/RED)	6. Unused
7. Unused	7. Ignition Input (+) (PINK)	7. Unused
8. Unused	8. Starter Motor (+) (VIOLET)	8. Unused
9. Unused	9. Disarm Input (+) (BROWN)	9. Unused
10. Unused	10. Unused	10. Unused
11. Unused	11. Arm Input (+) (WHITE/BLUE)	
12. Unused	12. Unlock Sense Input (LT. GREEN)	
13. Unused	13. Unused	
14. Unused	14. Unlock Motor Output	
15. Unused	15. Siren Battery Feed (+) (Optional)	
16. Unused	16. Horn/Siren Output(-) (Black)	
	17. Disarm/Override Button (Ground)	
	18. Disarm/Override Button (Input)	
	19. Hood Pin Input (-) (GRAY)	
	20. Door Trigger (GRN/VT)	
	21. Trunk Output (-) (BRN/BLK)	
	22. LED 2 (Red) (PLUG-IN)	
	23. LED 1 (Black) (PLUG-IN)	
	24. Illuminated Entry (-) (BLUE/GRN)	

1. Basic Harness (B)

IMPORTANT!!!

- **Remove fuses from Module before installation.**

1/B Parking Light Output (20 AWG) (WHITE)

Locate the vehicle parking light wire.

Verification: This wire will register either positive voltage or ground when the parking lights are turned on. Voltage does not vary when dimmer switch is adjusted. Refer to the **Vehicle Wire Color and Location Chart** for the wire color, polarity, and location.

- ▶ Connect the 1/B wire to the parking light wire.

IMPORTANT!

After installation, set the polarity of this circuit by moving the fuse inside of the control module to positive (+) or negative (-).

2/B Lock Motor Wire (+/-) (BLUE)

14/B Unlock Motor Wire (+/-) (GREEN)

IMPORTANT!

The Lock and Unlock output wires are only necessary if the ignition controlled lock/unlock feature is being used

After installation, set the polarity of this circuit by moving the fuse inside of the control module to positive (+) or negative (-).

Positive 3-wire Door Locking system

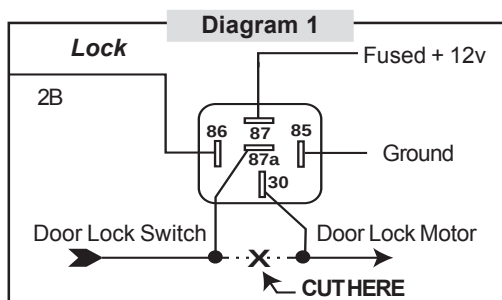
Polarity Fuse = Positive (+)

- ▶ Connect the 2/B wire to the vehicle lock wire.
- ▶ Connect the 14/B wire to the vehicle unlock wire.

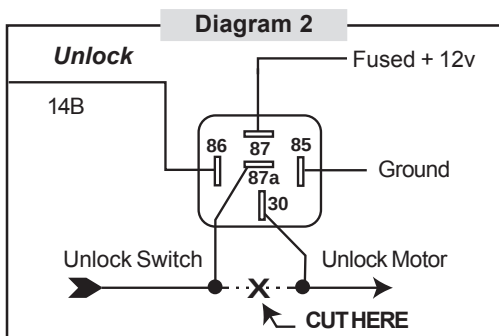
Positive Reverse Polarity Door Locking System

Polarity fuse = Positive (+)

- ▶ Connect wire 2/B as shown in Diagram 1.
- ▶ Connect wire 14/B as shown in Diagram 2 (next page).



1. Basic Harness (B), cont'd.

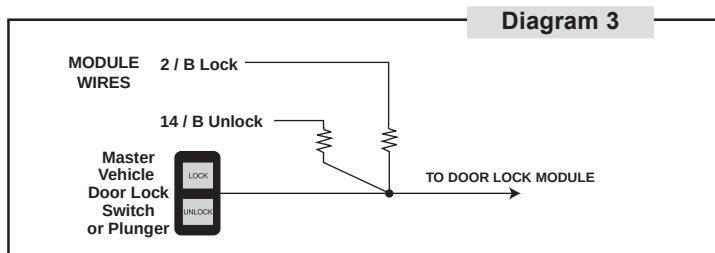


Negative 3-Wire Door Locking System **Polarity Fuse = Negative**

- ▶ Connect the 2/B wire to the vehicle lock wire.
- ▶ Connect the 14/B wire to the vehicle unlock wire.

Resistor Door Locking System **Polarity Fuse = Positive/Negative**

Note: Refer to **Vehicle Wire Color and Location Chart** for correct polarity. Move the fuse inside of the control module to positive or negative polarity and connect as shown in diagram 3 below.



1. Basic Harness (B), cont'd.

9/B Disarm Input (+) (BROWN)

1. Locate the wiring harness from the driver's side front door at the point where it enters the vehicle's interior.
 2. Locate the driver's door unlock motor wire. This wire will show a 12 volt pulse when the **driver's door only** is unlocked using the keyless entry remote.
- Connect the 9/B module wire to the vehicle's driver's door unlock motor wire.

11/B Arm Input (+) (WHITE/BLUE)

1. Locate the wiring harness from the driver's side front door at the point where it enters the vehicle's interior.
 2. Locate the driver's door lock motor wire. This wire will show a 12 volt pulse when the doors are locked using the keyless entry remote.
- Connect the 11/B module wire to the vehicle's driver's door lock motor wire.

12/B Unlock Sense Input (+/-) (LIGHT/GREEN)

1. Locate the vehicle wire that shows voltage or ground every time that **all doors** are unlocked using the keyless entry remote. Note: This wire must remain inactive when the driver's door is unlocked using the keyless entry remote.
- Connect the 12/B module wire to the vehicle unlock switch or motor wire.

Important:

After installation, set the polarity for this circuit in Option Programming Option Bank 3/Feature 3, page 13.

4/B Main Power (14 AWG) (RED)

- Connect the 4/B wire to the vehicle main power wire at the ignition switch. *Verification:* This wire registers voltage through every position of the ignition switch.

5/B Chassis Ground (14 AWG) (BLACK)

- Connect the 5/B wire to a **solid chassis ground point**. Scrape away paint from the grounding point to ensure a good connection. **Note:** Do not ground the 5B wire with any other vehicle components.

6/B Starter Input Key Side (14 AWG) (VIOLET/RED)

8/B Starter Output Motor Side (14 AWG) (VIOLET)

Locate the vehicle starter wire.

Verification: This wire registers voltage *only* when the key is turned to the START position.

Cut the vehicle starter wire in half.

Verification after starter wire is cut:

1. Basic Harness (B), cont'd.

- KEY SIDE of starter wire registers voltage when the key is turned to the START position.
- MOTOR SIDE of starter wire registers no voltage.

- ▶ Connect the 6/B wire to the KEY SIDE of the vehicle starter wire at the ignition switch harness.
- ▶ Connect the 8/B wire to the MOTOR SIDE of the vehicle starter wire.

7/B Ignition Input (14 AWG+) (PINK)

- ▶ Connect 7/B wire to the vehicle 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.

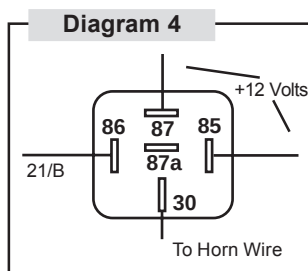
15/B Siren Battery Feed (RED)

16/B Horn/Siren Output (BLACK)

Locate the vehicle horn wire.

Verification: This wire will register either positive or ground when the horn is pressed.

- ▶ Connect the 21/B wire to the vehicle horn wire if the system is negative.
- ▶ If the system is positive, use a SPDT Relay (not supplied) and connect the 21/B wire to the vehicle horn wire as shown (Diagram 4).
- ▶ If you are installing a siren instead of connecting to the vehicle horn, connect the 16/B wire to the negative side of the siren and connect the 15/B (RED) wire to the positive side of the siren.



17/B, 18/B Emergency Override Button (20 AWG-)

Find a mounting location for the override button that is not easily seen or openly accessible. There must be at least 1" clearance behind the location.

Drill a $\frac{9}{32}$ " hole and mount the button.

19/B Hood Pin Input (20 AWG -) (GRAY)

- ▶ Install a grounding type pin switch pin and attach the 19/B wire.
Verification: When connected, the 19/B wire will register ground when the vehicle hood is opened.

1. Basic Harness (B), cont'd.

20/B Positive/Negative Door Input (20 AWG) (GREEN/VIOLET)

- ▶ Connect the 20/B wire to the vehicle pin switch or courtesy light circuit.
Verification - Refer to **Vehicle Wire Color and Location Chart** for circuit type and location, or verify the vehicle wire using the following guideline:

- *Positive Systems* - Target wire registers voltage when any door is opened.
- *Negative Systems* - Target wire registers ground when any door is opened.

Important!

After installation, select the polarity of this circuit in programming Option Bank 3/Feature 1 (factory default = negative), page 13.

Note:

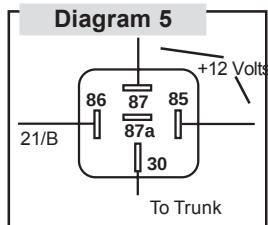
For positive systems, temporarily connect the 20/B wire to ground in order to access the programming mode. Refer to Pages 9-13. Change Option Bank 3/Feature 1 to positive polarity, page 13.

21/B Trunk Release 500 MA (-) (20 AWG) (BROWN/BLACK)

Locate the vehicle trunk release wire.

Verification: This wire will register either positive or ground when the trunk is opened.

- ▶ Connect the 21/B wire to the vehicle's trunk wire if the system is negative.
- ▶ If the system is positive, use a SPDT Relay (not supplied) and connect the 21/B wire to the vehicle's trunk wire as shown (Diagram 5).



22/B LED2 (20 AWG+)

23/B LED1 (20 AWG-)

Locate a visible section of the dash with 1" clearance behind the location.
Drill a $\frac{9}{32}$ " hole and snap the Status Indicator into place.

- ▶ Insert the Red Wire into the 22/B LED2 open cavity.
- ▶ Insert Black Wire into the 23/B LED1 open cavity.

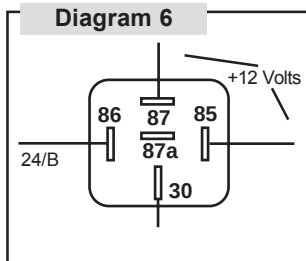
2. Basic Harness (B), cont'd.

24/B Courtesy Light Output (-) (20 AWG) (BLUE/GREEN)

Locate the vehicle courtesy light wire.

Verification: This wire is usually the door pin switch wire. Refer to testing procedure in 20/B to determine the correct polarity of the courtesy light system.

- ▶ For negative systems, connect the 24/B wire to the courtesy light wire.
- ▶ If the system is positive, use a SPDT Relay (not supplied) and connect the 24/B wire to the courtesy light wire as shown in Diagram 6.



3. System Power-Up and Programming

A. System Power-Up

1. All connections must be secure and well insulated.
2. Turn vehicle ignition on.
3. Insert fuses inside of the control module in their respective slots.
4. Plug in 24-pin Basic Harness.
5. Turn vehicle ignition off.

Fuse Size & Location

Trunk Output	Dome Light	Parking Lights	Door Locks
		+	+
		15A	25A
		-	-
			 5A
Heater 1	Heater 2	Ignition 1/2	Main Power

3. System Power-Up and Programming, cont'd

B. Adjusting the Onboard IT-s™ (Interior Theft Sensor)

The IT-s™ is factory pre-set at a moderate sensitivity level and has two adjustment points: Lite-Touch and Full Shock.

► **Adjusting Lite-Touch Sensitivity:**

1. To program the sensitivity of the lite touch trigger, simply enter into the installer options bank (option bank 3), then advance to the Lite Touch Adjustment Feature 6. Once the feature has been accessed, roll down the driver's side window and close all vehicle doors. use the door panel mounted LOCK trim switch to increase sensitivity, and the door panel mounted UNLOCK trim switch to decrease sensitivity.
2. To verify the sensitivity, strike the vehicle (while in programming) with the amount of force you feel is acceptable for a lite touch trigger. If the system chirps, it will recognize that force; otherwise increase or decrease to obtain proper sensitivity.
3. After the proper sensitivity has been attained, open the vehicle door to continue the programming process.

► **Adjusting Full-Shock Sensitivity:**

1. To program the sensitivity of the full-shock trigger, simply enter into the installer options bank (option bank 3), then advance to the Full-Shock Adjustment Feature 7. Once the feature has been accessed, roll down the driver's side window and close all vehicle doors. use the door panel mounted LOCK trim switch to increase sensitivity, and the door panel mounted UNLOCK trim switch to decrease sensitivity.
2. To verify the sensitivity, strike the vehicle (while in programming) with the amount of force you feel is acceptable for a full-shock trigger. If the system chirps, it will recognize that force; otherwise increase or decrease to obtain proper sensitivity.
3. After the proper sensitivity has been attained, open the vehicle door to continue the programming process.

Note:

There are 64 levels of adjustment in each option. Once the highest/lowest sensitivity is achieved, the siren/horn will sound an extended pulse to notify that you are at the end of the scale. Decreasing sensitivity one more step from the lowest end of the scale will shut that zone off.

3. System Power-Up and Programming, cont'd

C. Programming Selectable Options

1. Open the driver's door.
 - 1a. The 20/B wire must initially see a negative input to access programming.
2. Turn vehicle ignition on.
3. Press and hold emergency override button. After 15 seconds, the siren or horn will sound three (3) times. This indicates that the unit has entered the transmitter programming mode.
4. Release the button.
5. Press and release the emergency override button.

*The horn or siren will sound four (4) times. This indicates that the unit has entered the **Alarm Options Bank (Bank 1)**.*
6. Press the door panel mounted LOCK switch to advance to the desired feature. The siren or horn will sound a number of times to indicate the number of the option. **See Programmable Options Chart on Page 13.**
7. Press the door panel mounted UNLOCK trim switch to turn the option on or off. The dashboard mounted red LED status indicator indicates whether an option is on or off.
 - If the selected option is ON, the indicator will light.
 - If the selected option is OFF, the indicator will turn off.
 - The status indicator will turn on or off when an option is changed.
8. Press and release the emergency override button to advance to the next option bank. The horn or siren will sound either 5 or 6 times to indicate which option bank has been selected.
9. Follow steps 2 and 3 above to select and change features.
10. To exit programming mode, simply turn the ignition key to the off position.

3. System Power-Up and Programming, cont'd

D. Alternate Programming Method

Note: As an alternate method of programming selectable options, a generic Code Alarm remote must be programmed following the steps below:

Programming the Remote Transmitter

1. Open the driver's door.
 - 1a. The 20/B wire must initially see a negative input to access programming.
2. Turn vehicle ignition on.
3. Press and hold emergency override button. After 15 seconds, the siren or horn will sound three (3) times. This indicates that the unit has entered the transmitter programming mode.
4. Release the button.
5. Press the LOCK button on the remote transmitter to be programmed.

The siren or horn will sound once, indicating that the system has "learned" that remote transmitter.

Programming Options

1. Repeat steps 1-4 of **Programming the Remote Transmitter**
2. Press and release the emergency override button.

*The horn or siren will sound four (4) times. This indicates that the unit has entered the **Alarm Options Bank (Bank 1)**.*
3. Press the PANIC button(buttons 1 & 2 simultaneously using a 2 button transmitter or button 3 using a 4 button transmitter) to advance to the desired feature.

The siren or horn will sound a number of times to indicate the number of the feature.
4. Press the LOCK button to turn the feature on or off. The vehicle status indicator on the dashboard indicates whether an option is on or off.
 - If the selected option is ON, the indicator will light.
 - If the selected option is OFF, the indicator will turn off.
 - The status indicator will turn on or off when an option is changed.
5. Press and release the emergency override button to advance to the next option bank. The horn or siren will sound either 5 or 6 times to indicate which option bank has been selected.
6. Follow steps 2 and 3 above to select and change features.
7. To exit programming mode, simply turn the ignition key to the off position.

3. System Power-Up and Programming, cont'd

E. Adjusting the Onboard IT-s™ Using a Transmitter

The IT-s™ is factory pre-set at a moderate sensitivity level and has two adjustment points: Lite-Touch and Full Shock.

► Adjusting Lite-Touch Sensitivity:

1. To program the sensitivity of the lite touch trigger, simply enter into the installer options bank (option bank 3), then advance to the Lite Touch Adjustment Feature 6. Once the feature has been accessed, pressing the transmitter LOCK button will increase sensitivity and pressing the transmitter UNLOCK button will decrease sensitivity.
2. To verify the sensitivity, strike the vehicle (while in programming) with the amount of force you feel is acceptable for a lite touch trigger. If the system chirps, it will recognize that force; otherwise increase or decrease to obtain proper sensitivity.

► Adjusting Full-Shock Sensitivity:

1. To program the sensitivity of the full-shock trigger, simply enter into the installer options bank (option bank 3), then advance to the Full-Shock Adjustment Feature 7. Once the feature has been accessed, pressing the transmitter LOCK button will increase sensitivity and pressing the transmitter UNLOCK button will decrease sensitivity.
2. To verify the sensitivity, strike the vehicle (while in programming) with the amount of force you feel is acceptable for a full-shock trigger. If the system chirps, it will recognize that force; otherwise increase or decrease to obtain proper sensitivity.

Note:

There are 64 levels of adjustment in each option. Once the highest/lowest sensitivity is achieved, the siren/horn will sound an extended pulse to notify that you are at the end of the scale. Decreasing sensitivity one more step from the lowest end of the scale will shut that zone off.

3. System Power-Up and Programming, cont'd

F. Programmable Options Chart

Default settings in **BOLD**

OPTION	DESCRIPTION		
Option Bank 0 - 3 Chirps (Learn Transmitters)			
Option Bank One - 4 Chirps (Alarm Options)		STATUS INDICATOR	
1. Light Touch adj	See page 9 and page 12 for programming		
2. Full Shock adj	See page 9 and page 12 for programming		
3. Lock with Ignition	Doors lock when all doors are closed and ignition is turned on	ON	OFF
4. Unlock with Ignition	Doors unlock when ignition is turned off	ON	OFF
5. Delayed Door Lock	3 Second delay for theater dimming	On	OFF
6. Silent Choice	(1) By pressing LOCK or UNLOCK twice(manual)	ON(1)	OFF(2)
7. 60 Second Pre-Arm	Delays full system arm for 60 seconds	On	OFF
8. Not Used	DO NOT CHANGE		
Option Bank Two - 5 Chirps (Keyless Options)			
1. Passive Starter Kill	Engages starter kill after one minute	ON	OFF
2. Passive Arming	Alarm automatically arms 60 sec. after ignition is turned off	ON	OFF
3. Passive Door Locks	Doors lock automatically when alarm passively arms	ON	OFF
4. Noise Control	Alarm will (1) sound for five 30-sec. cycles, then ignore trigger or (2) Sound continuously when triggered if an entrance is left open	ON(1)	OFF(2)
5. Real Panic Sound	(1) Real Panic (2) Steady Pulsed	ON(1)	OFF(2)
6. Horn/siren	(1) Horn (2) Siren	ON(1)	OFF(2)
Option Bank Three - 6 Chirps (Installer Options)		STATUS INDICATOR	
1. Door Trigger Polarity	(1) Positive (2) Negative	ON(1)	OFF(2)
2. ARM Inout Polarity	DO NOT CHANGE		
3. Unlock Sense Polarity	(1) Positive (2) Negative	ON (1)	OFF (2)

4. System Testing

1. Follow each instruction below.
2. Verify that the CA-330™ operates as indicated under each instruction.
3. Check the appropriate wire connections and/or fuses if the unit fails to perform a specific function. Also check that any options pertaining to the function are programmed properly.

Security Operation

Press LOCK on the Keyless Entry Remote

1. Doors lock.
2. Courtesy lights (if on) shut off.
3. Unit checks to see if doors, hood or trunk are open. If open, siren (or horn) sounds once, parking lights flash once, and system enters pre-arm mode.

If the above conditions are not present:

1. Vehicle starter is disabled.
2. Siren (or horn) sounds twice / parking lights flash twice.
3. LED (red light) flashes slowly for duration of arm cycle.
4. After 5 seconds, unit monitors all entrances and sensors.

Pre-arm mode:

1. The unit will wait for the open door, hood or trunk to be closed. The LED is solid during pre-arm.
2. If the entrance is secured, the siren (or horn) will sound again, parking lights will flash once, and the system will arm.
3. If the entrance is not secured after 4 minutes, the siren (or horn) will sound again, parking lights will flash once, the system will arm, and the defective trigger or entrance will be ignored.

Note: If entrance is secured after 4 minutes, the system will immediately begin to monitor the entrance for intrusion.

If door, sensor or hood/trunk input is triggered:

1. Siren sounds (or horn pulses) for 30 seconds or until UNLOCK is pressed on the Keyless Entry Remote.
2. Parking lights flash / LED flashes quickly for duration of alarm cycle.

Note: The unit will ignore a trigger input if same input triggers alarm 5 times during one arm cycle. The LED will continue to flash quickly to indicate that the alarm has been triggered.

4. System Testing, cont'd

If Passive Arm option is set to On:

System will arm 60 seconds after key is turned off.

Press UNLOCK

1. Doors unlock
2. Factory alarm (if equipped) is turned off.
3. Siren or horn sounds once / parking lights flash once.
4. Vehicle starter is enabled.
5. LED turns off (if alarm was triggered, LED will flash quickly).

VALET MODE

To place the security system in Valet Mode, turn the key on and off three times within 5 seconds.

To exit Valet Mode, turn the key on and off three times within 5 seconds.

5. Mounting the Module / Finishing the Installation

IMPORTANT!

Perform System Test (pages 14-15) before and after this section.

Use the supplied long tie wraps to mount the module to a brace or wire harness under the dash. The module and harnesses must be clear of moving parts.

CODE//ALARM®
Technology that talks to cars and trucks.™