

100414-8

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
24 Hours/ 7 Days per Week
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 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.

Power Elite™ PC 4100

System Layout

FOR MODULE FUSE SIZE AND POLARITY LOCATIONS, REFER TO CHART ON PAGE 10.

IMPORTANT!!!

The module *MUST* be programmed before it will operate. Refer to the programming instructions on pages 11-13.

System Layout Power Elite PC 4100™

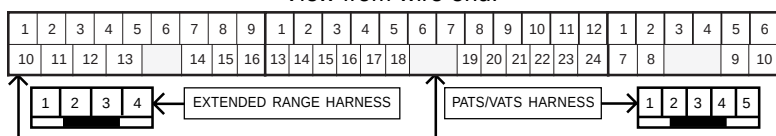
Security

A = Advanced Harness (Optional)

B = Basic Harness (24 pin)

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:



Advanced Harness (Optional)	Basic Harness	
1 Lock Switch (87a) (BLUE/BLK)	1 Parking Light Output (WHITE)	
2 Unused	2 Lock Motor Output (BLUE)	
3 Unlock Switch (87a) (GRN/BLK)	3 Unused	
4 Unused	4 Battery (+12V) (RED)	
5 Unused	5 Ground (BLACK)	
6 Unused	6 Starter Key (+) (VIOLET/RED)	
7 Unused	7 Ignition 1 Input (+) (PINK)	
8 Unused	8 Starter Motor (+) (VIOLET)	
9 Trunk Switch (87a) (TAN/RED)	9 Unused	
10 Unused	10 Multiplex Output (YLWHT)	
11 Unused	11 Unused	
12 Unused	12 Unused	
13 Unused	13 Trunk Motor Output (TAN)	
14 Unused	14 Unlock Motor (GREEN)	
15 Unused	15 Siren Feed (+12V) (PLUG-IN)	
16 Door Trig 10k Pull-Up (RED)	16 Horn/Siren Drive (-) 1 Amp (PLUG-IN)	
	17 Disarm/Override Button (Ground) (PLUG-IN)	
	18 Disarm/Override Button Input (PLUG-IN)	
	19 Hood Pin Input (-) (GRAY)	
	20 Door Trigger (GRN/VT)	
	21 Unused	
	22 LED 2 (Red) (PLUG-IN)	
	23 LED 1 (Black) (PLUG-IN)	
	24 Second Door Unlock (-) 500ma (BLU/GRN)	

1. Basic Harness (B)

IMPORTANT!!!

- Remove fuses from Module before installation.
- Solder and tape all connections.

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(-).

Use the following diagrams for door locks or purchase the Advanced Harness and utilize the on-board relays.

2/B Lock Motor Wire (20 AWG) (BLUE)

14/B Unlock Motor Wire (20 AWG) (GREEN)

24/B Second Door Unlock (20 AWG -) (BLUE/GREEN)

IMPORTANT!

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

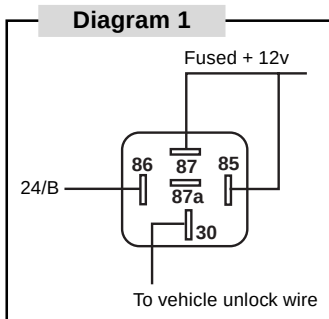
**Type 1: Positive 3-wire door lock system -
Polarity Fuse = Positive (+)**

Single-stage unlock

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

Two-stage unlock

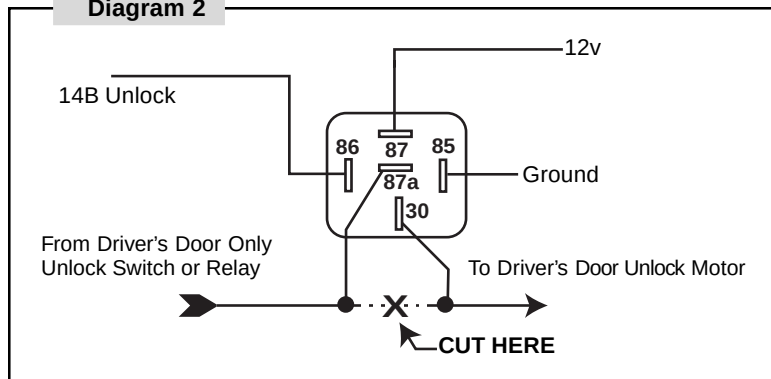
- Connect the 2/B wire to the vehicle lock wire.
- Use a SPDT relay (not supplied) and connect the 24/B wire to the vehicle unlock wire as shown in Diagram 1.



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

- ▶ Connect the 14/B wire as shown in Diagram 2.

Diagram 2

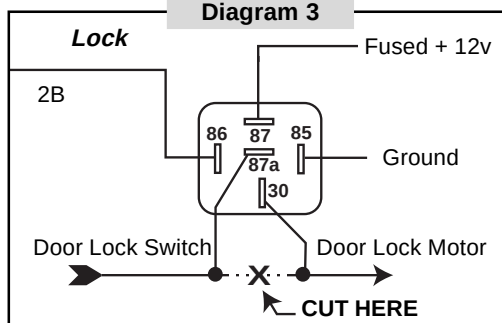


Type 2: Positive 5-Wire Door Lock System Polarity fuse = Positive (+)

Single-Stage Unlock

- ▶ Connect wire 2/B as shown in Diagram 3.
- ▶ Connect wire 14/B as shown in Diagram 4.

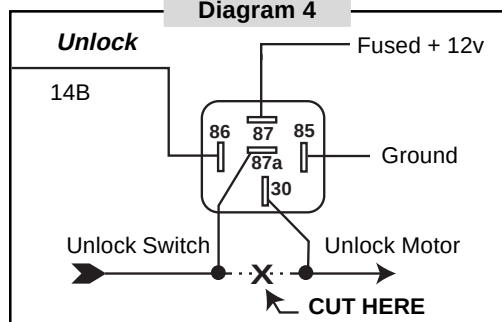
Diagram 3



Two-Stage Unlock

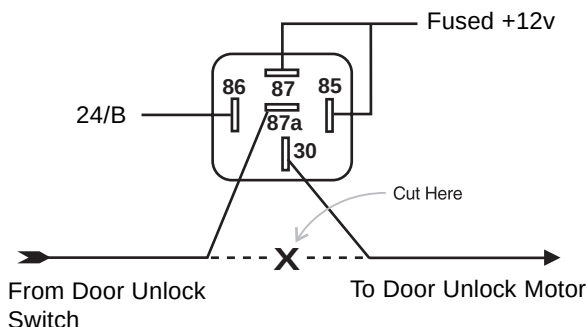
- ▶ Connect wire 2/B as shown in Diagram 3.
- ▶ Use a SPDT relay (not supplied) and connect the 24/B wire to the vehicle's unlock wire as shown in Diagram 5 (page 5).
- ▶ Connect wire 14/B as shown in Diagram 2 (above).

Diagram 4



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

Diagram 5



Type 3: Negative 3-Wire Door Locking System Polarity Fuse = Negative

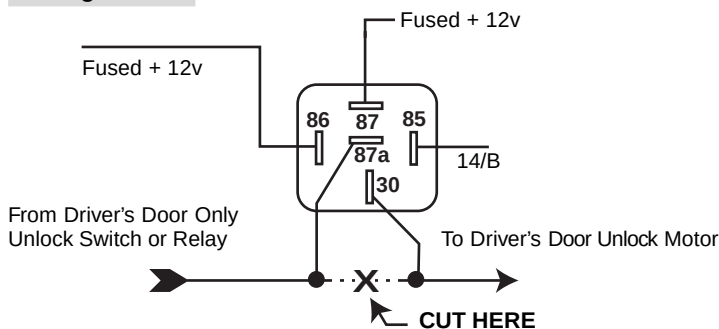
Single-stage unlock

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

Two-stage unlock

- ▶ Connect the 2/B wire to the vehicle lock wire.
- ▶ Connect the 24/B wire to the vehicle unlock wire.
- ▶ Use a SPDT relay (not supplied) and refer to Diagram 6 to connect to the vehicle's driver's unlock wire.

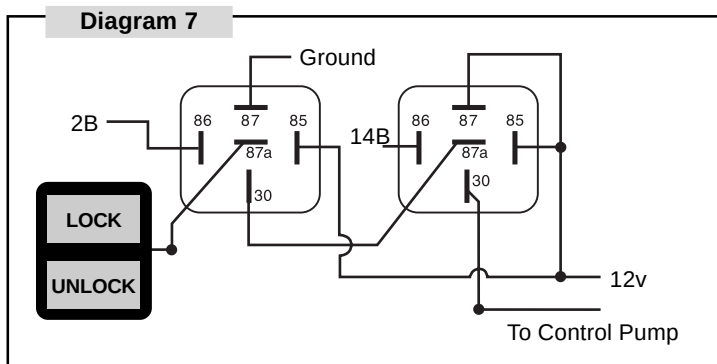
Diagram 6



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

Type 4: Vacuum Door Lock System Polarity Fuse = Negative

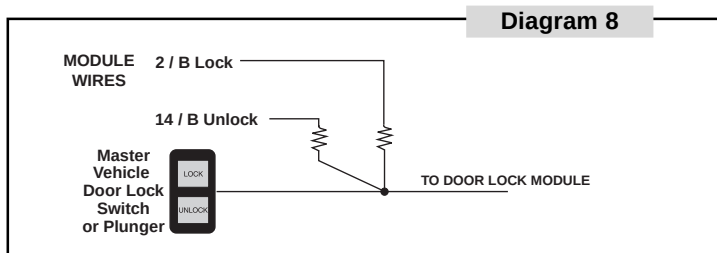
Note: Two-stage unlock will not work with this type of system.



Type 5: Resistor Door Lock 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.

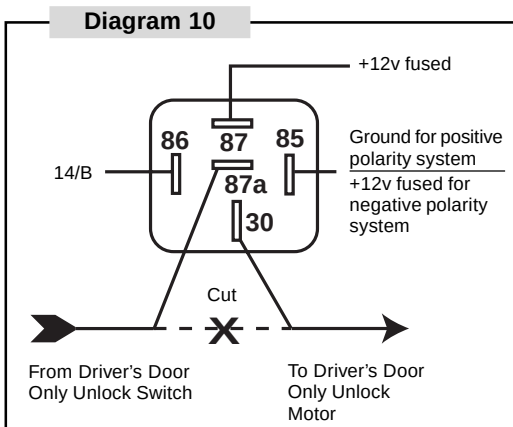
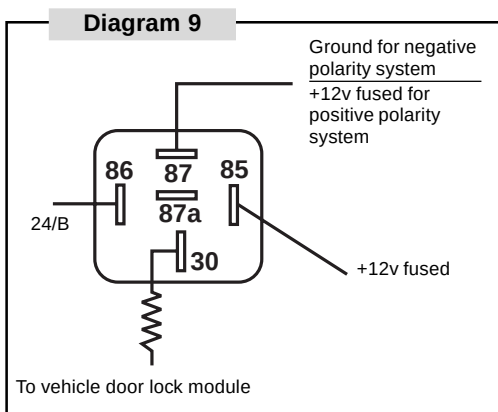
Single Stage Unlock



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

Two-Stage Unlock

- ▶ Connect the 2/B wire as shown in Diagram 8 (page 6).
- ▶ Connect the 24/B wire as shown in Diagram 9 (below).
- ▶ Connect the 14/B wire as shown in Diagram 10 (below).



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

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:

- 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 1 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.

13/B Trunk Release Output (TAN)

Locate the vehicle trunk release wire.

Verification: Refer to the **Vehicle Wire Color and Location Chart** for the wire color, polarity, and location.

- ▶ Connect the 13/B wire to the vehicle trunk release wire.

IMPORTANT!

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

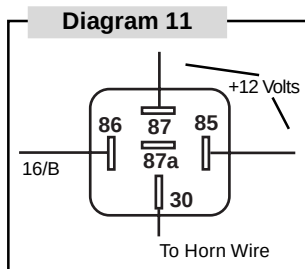
1. Basic Harness (B), cont'd.

16/B Horn Relay Drive 500 ma (20 AWG -)

Locate the vehicle horn wire.

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

- ▶ Connect the 16/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 16/B wire to the vehicle horn wire as shown (Diagram 11).



If you are installing a siren:

15/B, 16/B Siren Installation (20 AWG)

Mount siren with bell housing facing down.

Use at least two (2) screws to secure siren to mounting location.

- ▶ Connect siren BLACK wire to 16/B Horn/Siren drive.
- ▶ Connect siren RED wire to a 15/B siren feed.
- ▶ Select output to be "Siren Output" in Option Bank 1/Feature 7 on page 13.

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.

- ▶ Connect one of the override button BROWN wires to the 17/B wire.
- ▶ Connect the other override button BROWN wire to the 18/B wire.

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

- ▶ Install the supplied pin switch 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 2/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 PAGE 11. CHANGE OPTION BANK 2/FEATURE 1 TO POSITIVE POLARITY (PAGE 13).

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.

- Connect the Status Indicator Red Wire to the 22/B LED2 wire.
- Connect the Status Indicator Black Wire to the 23/B LED1 wire.

Tip: To change the Red LED to a Green LED:

- Connect the status indicator Black wire to the 22/B LED2 wire.
- Connect the status indicator Red wire to the 23/B LED1 wire.

Fuse Size & Location

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

2. System Power-Up and Programming

A. System Power-Up

1. All connections must be secure and well insulated.
2. Insert fuses inside of the control module in their respective slots.
3. Plug in DNA/fuse cover on top of the control module.
4. Turn vehicle ignition on.
5. Plug in 24-pin Basic Harness.
6. Press DISARM on the remote control
7. Turn vehicle ignition off.

B. Remote Transmitter Programming

Note: Each system module has two “slots”, or memory locations, to store transmitter codes, giving it the ability to operate from up to two transmitters. For proper operation, a transmitter code must be stored into each memory slot. When using less than two transmitters, follow the suggested programming parameters:

- **One Remote Transmitter** - Program two (2) times
- **Two Remote Transmitters** - Program each transmitter once

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 10 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 Arm button on the remote transmitter to be programmed. The siren or horn will sound once, indicating that the system has “learned” that remote transmitter.
6. Repeat step 5 for any additional transmitters or transmitter codes.
7. **To continue to the Options Programming mode**, go to step 2 of **Programming Selectable Options** (below). Otherwise, turn the vehicle ignition off to exit the programming mode. Test all remote transmitters to ensure that they work properly by toggling the ARM and DISARM buttons.

C. Programming Selectable Options

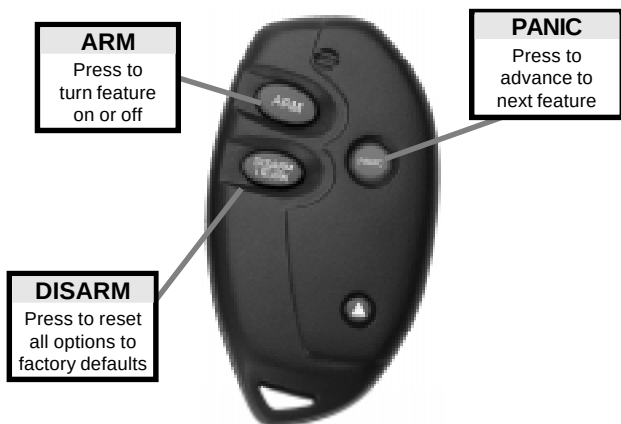
Note: Transmitters must be programmed prior to these steps.

1. Repeat steps 1-4 of **Remote Transmitter Programming** (above).
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 **Keyless & Alarm Options Programming** mode.
3. Press the PANIC button to advance to the next feature.

The siren or horn will sound a number of times to indicate the number of the option.

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



4. Press the Arm button to turn the option 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. When changes are complete, press and release the emergency override button to continue to the next option bank. (Siren or horn will sound five (5) times.)
6. To reset all options back to factory defaults, press the DISARM button.

Note: Option Bank Installer options will never reset.

7. Turn ignition off to exit programming.
See Options Chart on page 13.

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

D. 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.

► To adjust Lite-Touch sensitivity:

1. Enter programming Option Bank 2/Feature 2.
2. Press ARM to increase sensitivity. Press DISARM to decrease sensitivity.
3. Strike vehicle to test. Chirp will verify impact.
4. Pressing ARM until no siren/horn chirps are heard will disable Lite-Touch IT-s™.

► To adjust Full-Shock sensitivity:

1. Enter programming Option Bank 2/Feature 3.
2. Press ARM to increase sensitivity. Press DISARM to decrease sensitivity.
3. Strike vehicle to test. Chirp will verify impact.
4. Pressing ARM until no siren/horn chirps are heard will disable Full-Shock IT-s™.

E. Programming Options

Default settings in **BOLD**

OPTION

DESCRIPTION

Option Bank 0 - 3 Chirps (Learn Transmitters)

Option Bank One - 4 Chirps (Keyless & Alarm Options) STATUS INDICATOR

1. Lock with Ignition	Doors lock when all doors are closed and ignition is turned on	ON	OFF
2. Delayed Door Lock	3 sec. delay locking for theater dimming	ON	OFF
3. Extended Locks	Lock duration is (1) 5 sec. or (2) 0.6 sec.	ON(1)	OFF(2)
4. Unlock with Ignition	Doors unlock when ignition is turned off	ON	OFF
5. Double Unlock Pulse	Unit provides two pulses on each unlock	ON	OFF
6. Confirmation Chirps	(1) Yes (2) No confirmation chirps	ON(1)	OFF(2)
7. Real Panic Horn Output	(1) Random pulsed (2) Steady pulsed output	ON(1)	OFF(2)
8. Passive Arming	Alarm automatically arms 60 sec. after ignition is turned off	ON	OFF

Option Bank Two - 5 Chirps (Installer Options)

1. Door Trigger Polarity	(1) Positive (2) Negative	ON(1)	OFF(2)
2. Lite Touch adj	ARM raises sensitivity; DISARM lowers sensitivity	ON	OFF
3. Full Shock adj	ARM raises sensitivity; DISARM lowers sensitivity	ON	OFF

3. System Testing

1. Follow each instruction below.
2. Verify that the PowerElite PC 4100™ 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 ARM

1. Doors lock.
2. 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. Horn (or siren) 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.

Press ARM twice

*If Horn / Siren Chirps option is set to manual, horn (or siren) sounds twice on second press of ARM button (once if system is in pre-arm mode).

Press ARM, then press PANIC within 2 seconds to DISABLE the IT-s™. Two quick chirps will verify this function Press ARM to re-enable shock.

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 horn (or siren) will sound again, parking lights will flash once, and the system will arm.
3. If the entrance is not secured after 4 minutes, the horn (or siren) 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. Horn pulses (or siren sounds) for 30 seconds or until DISARM is pressed.
2. Parking lights flash / LED flashes quickly for duration of alarm cycle.
3. If the alarm system is triggered, pressing ARM will end the 30-second cycle while leaving the system armed and locked.

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.

3. System Testing

After alarm has been triggered and the 30-second cycle has elapsed, pressing DISARM will sound 4 chirps to indicate an intrusion. Enter vehicle and press the override button once to determine which input triggered the alarm.

Horn pulses (or siren sounds) a number of times to indicate which input triggered the alarm:

Number of Chirps:

- 1 - Interior Theft Sensor
- 2 - Door input
- 3 - Hood Input
- 4 - Trunk input/External Sensor
- 5 - Ignition

If Passive Arm option is set to On:

System will arm 60 seconds after key is turned off.

Press DISARM

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

Press DISARM twice

- 1. *If ARM / DISARM Verification is set to manual, horn (or siren) sounds once.
- 2. Passenger doors unlock if using 2-stage unlock.

Press and hold PANIC for 1 second

Horn pulses (or siren sounds), lights flash for 30 seconds or until any remote control button is pressed.

Press and hold TRUNK

Trunk or hatch opens, or other device activates AS LONG AS BUTTON IS HELD.

If Ignition Lock option is set to On:

Doors lock when all doors are closed and key is turned to ON position.

If Ignition Unlock option is set to On:

Doors unlock when ignition is turned off.

VALET MODE

Press ARM/LIGHTS with vehicle ignition On

System enters Valet mode, LED double-blinks.

Press DISARM/TRUNK with vehicle ignition On

System exits Valet mode, LED turns off.

4. Mounting the Module / Finishing the Installation

IMPORTANT!

Perform System Test 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.

Notes:

Notes:

Notes:

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