Instructions for Wireless Security System
Power & Alarm Solution

Notifications

Patents:

Patent No.: US 8,279,077 B1

Patent No.: US 8,558,714 B1

Sennco Solutions, Inc. is not held liable for any firmware or software changes implemented by the displayed product's manufacturer, distributor, or reseller.

Any changes/modifications to this equipment not approved by Sennco Solutions Inc. could void the user's authority to operate the equipment.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Component	**Model**	**FCC ID**	**IC ID**
Main alarm/Sniffer	Model: 150001	COI-150001	20574-150001
Sensor head	Model: 150003	COI-150003	20574-150003
Bubble maker	Model: 150005	COI-150005	20574-150005

Table of Contents

I. Parts List

A. Main alarm

Main alarm unit

AC power cable for main alarm

DaKey

B. Bubble maker

Bubble maker

AC power cable for bubbler maker

C. Sensor head

Sensor head   Sensor head shielding   Sensor head adhesive   Key   WPWR cable

D. Sniffer

Sniffer

AC power cable for Sniffer

E. Cradle

Cradle	Cradle mounting plate	Bolts with T nuts	AC power cable

Cordwinder 7	Adhesive for Cordwinder 7

F. Gateway

Gateway	Gateway antennas	AC power cable

II. Description of Alarm

A. Main alarm

B. Bubble maker

Antenna (internal)

DIP switches

Arrow (all bubble makers must face the same direction)

C. Sensor head

Plunger switch

Charging contacts

Cordwinder cable end port

Micro USB charging port

D. Sniffer

Antenna

USBA cable

AC power port

E. Cradle

Charging
contacts
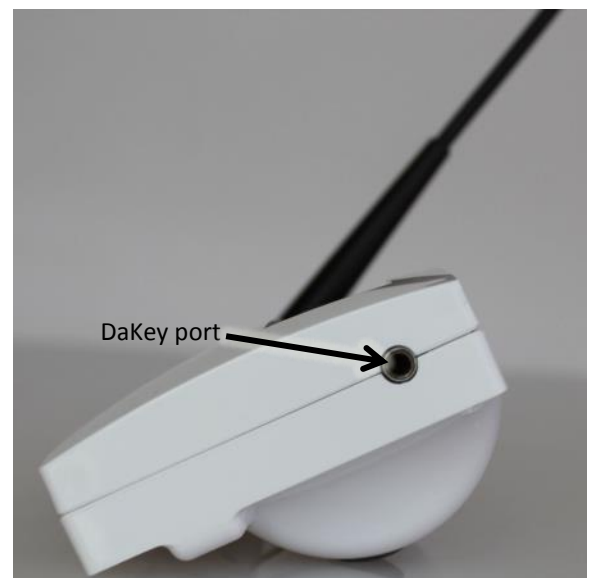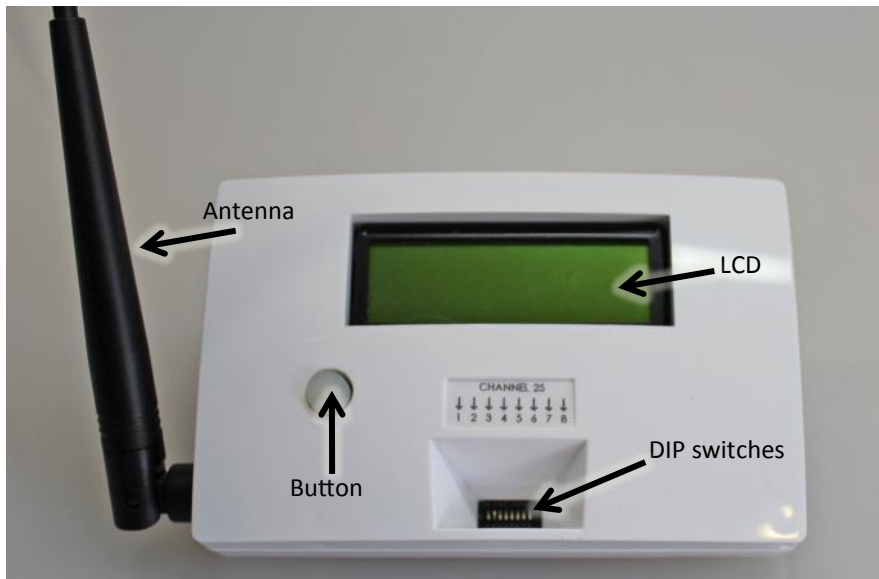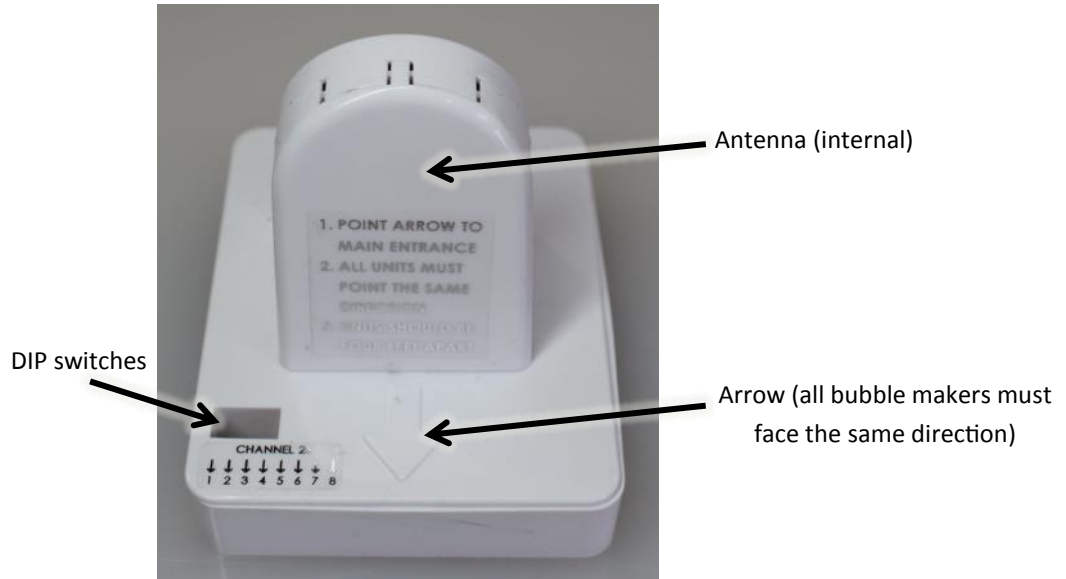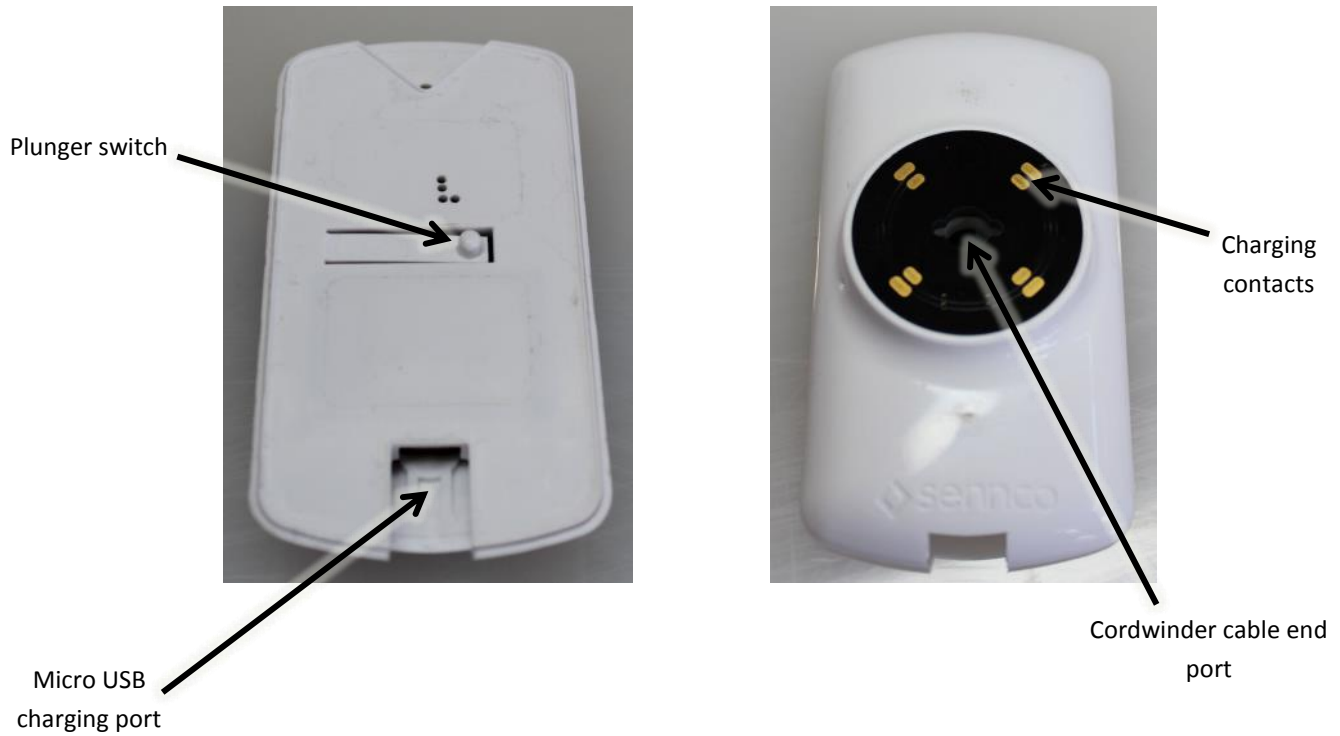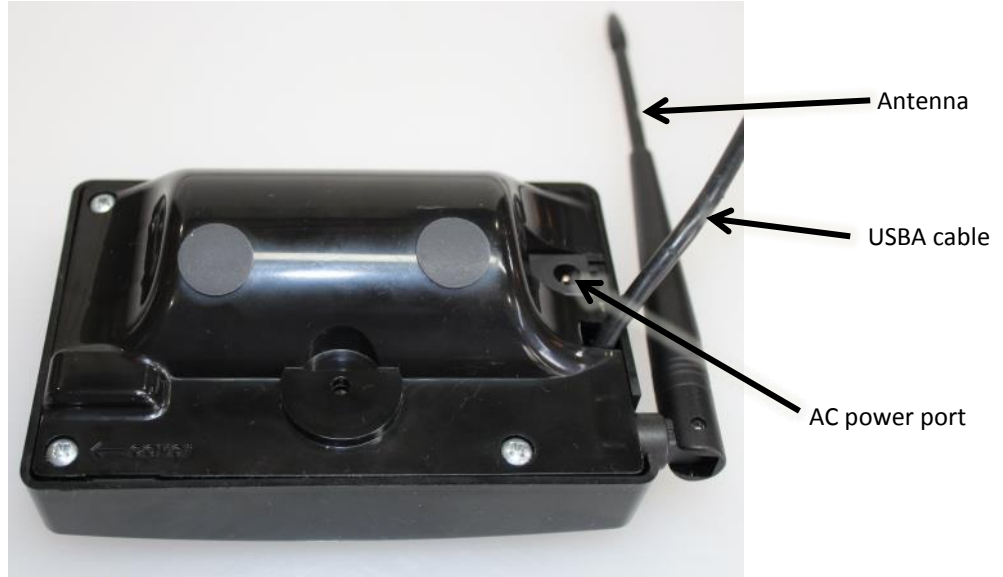
AC power port

F. Gateway

USB port WLAN antenna port (taller) AC power port 3G/GPRS antenna port (shorter)

III. Set Up

A. Cradles

1. Insert bolts through holes in cradle mounting plate. Thread a T nut onto each bolt.

2. Place cradle mounting plate into position on the fixture. The T nuts should be turned to allow them to fit through the track. Make sure that the large opening in the cradle mounting plate is at the top left.

3. From underneath the fixture, turn the T nuts perpendicular to the track so they will no longer pass through it.
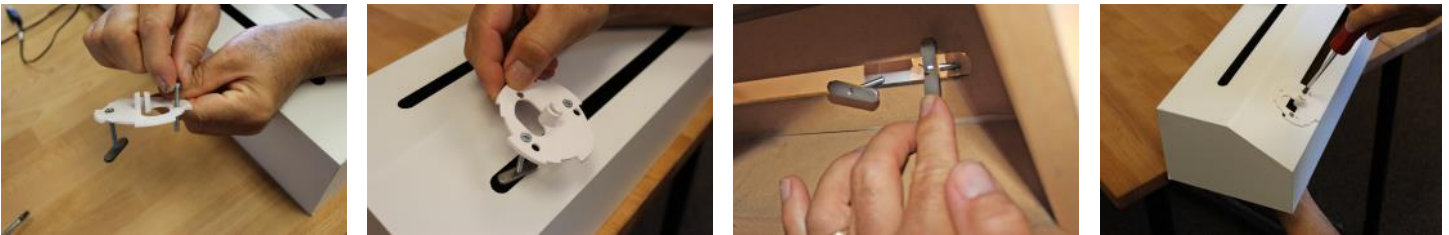
4. While holding the T nuts in place, use a screwdriver to turn the bolts clockwise until tightened down.

5. The slot in the center post of the cradle mounting plate should be open at the top and the large opening in the cradle mounting plate should be at the top left.

6. Find the cordwinder. Clean the top of the cordwinder box where the cable exits using an alcohol wipe. Dry it with a clean cloth.

7. Peel the backing off of the cordwinder mounting adhesive and secure the adhesive to the cordwinder. Press firmly for about 15 seconds for a strong adhesive bond.

8. Using an alcohol wipe, clean the area underneath the fixture where the cordwinder will be placed. Dry with a clean cloth.

9. Peel the backing off of the top of the adhesive and secure the cordwinder to the underside of the fixture so that the cable is centered in the cradle mounting plate. Press firmly for about 15 seconds for a strong adhesive bond.

10. Pull the cable end up through the large hole in the cradle mounting plate.

11. Guide the cable into the slot on the center post of the cable mounting plate. Slowly allow the cable to retract until the cable end rests on the center post.

12. Find the AC power cable for the cradle and pull the barrel plug end up through the large hole in the cradle mounting plate.

13. Plug the cable into the power port on the bottom of the cradle.

14. Guide the cable into the cable keeper.

15. Make sure that the mouse hole is towards the back of the fixture.

16. Place the cradle on top of the cradle mounting plate, offset slightly counterclockwise from center.

17. Turn the cradle clockwise until it locks in place.

18. Find the two-prong end of the AC power cable, connect it to the cradle end, and plug the two-prong end into an outlet that has AC power available.
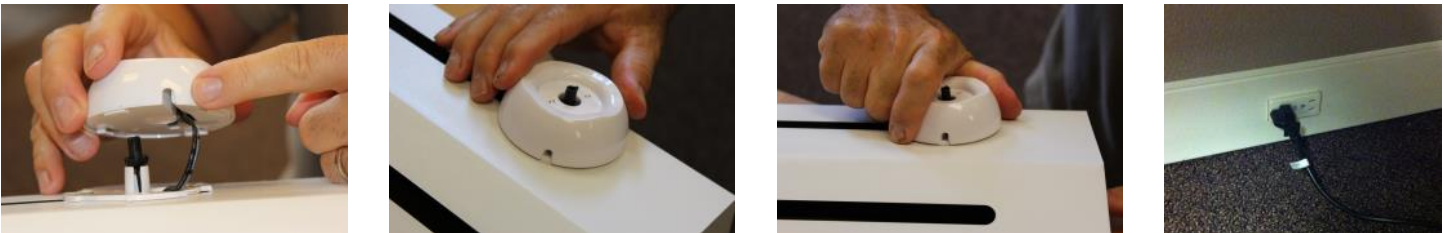
19. There is a red LED on the bottom of the cradle which will be lit when the cradle is receiving power. This LED is not visible when the cradle is on the cradle mounting plate.

20. Repeat as necessary for additional cradles.

B. Main alarm

1. Plug the barrel plug end of the AC power cable into the AC power port on the main alarm.

2. Plug the other end of the cable into an outlet that has AC power available.

3. Place the main alarm in a secure location **within 50 feet** of the **bubble makers** with the antenna positioned vertically 90°. It should be at least **2 feet** away from the nearest **sensor head**.

C. Sniffer

1. Plug the barrel plug end of the AC power cable into the AC power port on the sniffer.

2. Plug the other end of the cable into an outlet that has AC power available.

3. Place the sniffer in a secure location within 50 feet of the system with the antenna positioned vertically 90°.

D. Gateway

1. Screw the taller antenna into the left position labeled WLAN and the shorter antenna into the right position labeled 3G/GPRS. Position both antennas vertically.

2. Plug the USBA cable from the sniffer into the USB port on the gateway.

3. Connect the two parts of the AC power cable together. Plug the barrel plug end of the AC power cable into the AC power port on the gateway.

4. Plug the other end of the cable into an outlet that has AC power available.

E. Bubble makers

1. Plug the barrel plug end of the AC power cable into the AC power port on the bubble maker.

2. Plug the other end of the cable into an outlet that has AC power available.

3. The green LED on the front of the bubble maker indicates power is being received.

4. Place the bubble maker in position. (**Note: They cannot be placed upside down.**)

    a)   Each bubble maker generates a 6 ft - 8 ft radius sphere within which the protected devices are safe.

    b)   Additional bubble makers should be spaced 3 1/2 feet apart.

    c)   Each bubble maker has an arrow on the front and they all need to be pointed in the same direction.

    d)   Bubbles that converge form a tube.
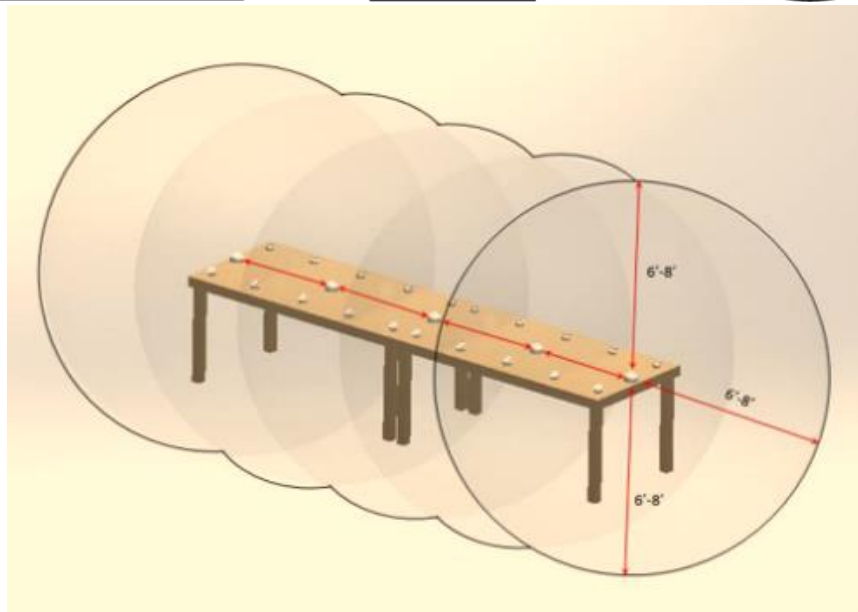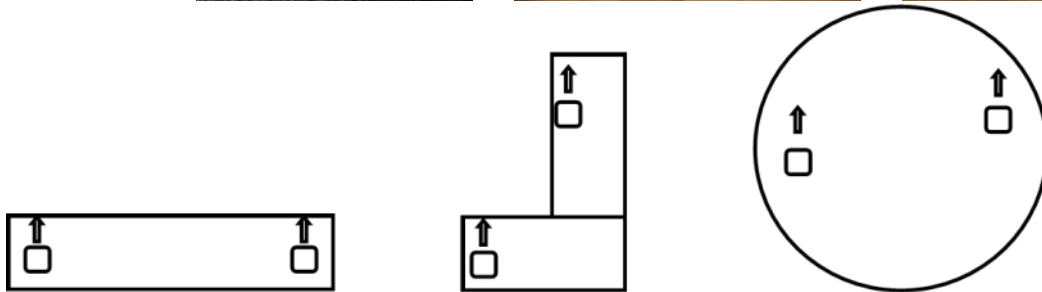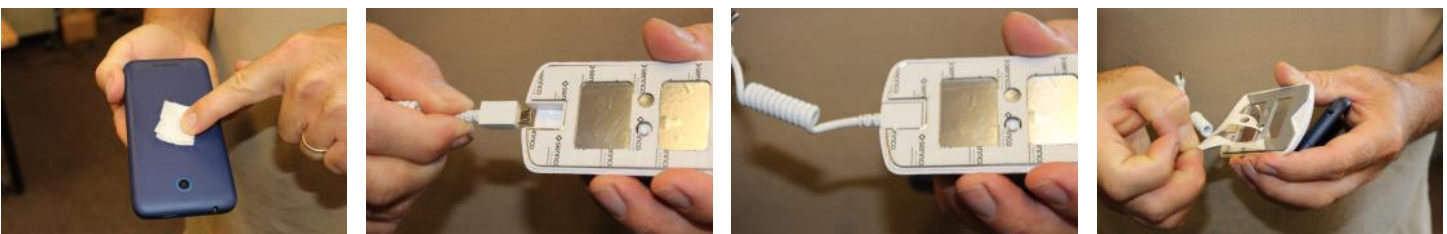
F. Sensor heads

1. Clean the surface of the sensor head's inside face using an alcohol wipe. Dry with a clean cloth.

2. Peel the backing off of the shielding and carefully line it up with the edge of the sensor head's inside face. The v notch will be at the top of the sensor head and the charging port will be at the bottom.

3. Smooth down the shielding as you continue to adhere it to the sensor head.

4. Make sure that the shielding is smoothed down and securely adhered across the inside face of the sensor head.

5. Peel the backing off of one side of the sensor head adhesive.

6. Secure the adhesive to the sensor head on top of the shielding. Press firmly for about 15 seconds for a strong adhesive bond.

7. Place the sensor head on a powered cradle to "wake up" the sensor head.

8. Two red LEDs on the back of the sensor head will flash indicating that the sensor head is active but not yet monitored by the system.

9. Clean the back of the device to be protected using an alcohol wipe. Dry with a clean cloth.

10. Plug the micro USB power cable into the charging port on the sensor head.

11. The end of the micro USB power cable is molded to fit snugly in the sensor head's charging port.

12. Peel the backing off of the sensor head adhesive.

13. Center the sensor head on the back of the device to be protected.

14. Press firmly for about 15 seconds for a strong adhesive bond.

15. Plug the micro USB power cable into the device's charging port.

G. Connecting sensor heads to cordwinder cables

1. Pull a length of the cordwinder cable from the cradle and bring the sensor head to it.

2. Insert the cable end into the hole in the back of the sensor head. Then turn the cable end a quarter turn clockwise. You will hear and feel a click when the cable is locked.

3. The cable end will still rotate about a quarter turn but will not come out without using the cable release key.

H. Disconnecting sensor heads from cordwinder cables

1. Insert the cable release key into the hole in the side of the sensor head. The key is flexible to prevent damage to internal components.

2. You will feel a click when the cable end is unlocked. Turn the cable end about a quarter turn counter-clockwise and pull it out of the sensor head.

3. The protected device is now released from the mechanical security while still being monitored by the wireless system.

IV. Teaching DaKeys

DaKeys will be programmed or "taught" to the system simply by inserting them into the DaKey port on the main alarm. The first DaKey inserted will be taught automatically. Additional DaKeys can be taught by inserting them within five seconds after removing a previously taught DaKey. Anytime a recognized DaKey is inserted and removed the system provides a five second window of opportunity for teaching another DaKey.

A. Teaching the first DaKey

1. Ensure the system has AC power supplied.

2. Insert a DaKey into the DaKey port on the main alarm.

3. The system will automatically program this DaKey.

4. The LCD will state "KEY LEARNED" and show the count of keys learned as 01.

5. Remove the DaKey.

B. Teaching additional DaKeys

1. Insert any previously taught DaKey into the main alarm.

2. Remove the DaKey.

3. Within five seconds, insert the next DaKey to be taught.

4. The system will automatically program this DaKey.

5. The LCD will state "KEY LEARNED" and the count of keys learned will be updated..

6. Remove the DaKey.

7. **Note:** Up to ten DaKeys can be taught to the system.

V. Configuring the system

A. Make sure that the main alarm has power, all bubble makers have power (indicated by a green LED), all of the cradles have power (indicated by a red LED on the underside of the cradle), and that all of the sensor heads have been activated by placing them on a powered cradle (indicated by two red flashing LEDs on the sensor head).

B. Make sure that the bubble makers are spaced 3 1/2 feet apart with all of their arrows pointed in the same direction, and that the main alarm is within 50 feet of them. Make sure that nearest sensor head is at least 2 feet away from the main alarm.

C. Insert a recognized DaKey into the main alarm and leave it inserted.

D. The LCD will state "DISARMED"

E. Hold down the button on the front of the main alarm for 4 seconds.

F. The LCD will state "CONFIGURING" and show a device count of 000.

G. The bubble makers will all begin to ping a signal back to the main alarm (indicated by a blue flashing LED on each bubble maker).

H. The main alarm will listen for all of the sensor heads and the device count on the LCD will be updated.

I. When completed, the flashing blue LEDs on the bubble makers will stop and the LCD will state "CONFIGURED" and show a count of the total number of sensor heads found. If this number is less than the physically present heads check all of them and then repeat the configuration.

J. The LCD will also state "Remove key to arm the system" indicating it is now safe to remove the DaKey from the main alarm.. The system is not armed until the DaKey has been removed.

K. After removing the DaKey there will be a less than 5 second delay before the system is armed. The bubble makers will now flash a blue LED and the sensor heads will flash a green LED as they ping back to the main alarm each second.
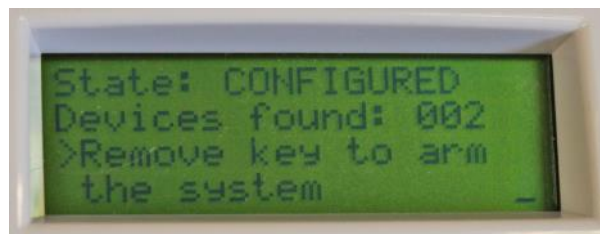
VI. Sensor head alarm

A.   If the sensor head is out of the "safe zone" sphere created by the bubble makers then the red LEDs on the sensor head will begin to flash.

B.   After 1-2 seconds the sensor head will emit an alarm tone that is audible to the person holding the device.

C.   The flashing red LEDs and audible tone serve as a polite warning that the device needs to be brought back within the safe zone.

D.   If returned to the safe zone within 10 seconds the audible tone and flashing red LEDs will cease. The sensor head will return to flashing green LEDs indicating it is armed.

E.   If, however, the device is not returned to the safe zone within 10 seconds then the main alarm will be triggered causing it to emit a loud alarm that is audible throughout the area.


VII. Silencing the Main Alarm

A.   If the system alarms check the LCD on the main alarm. It will show which sensor head has triggered the alarm.

B.   Insert a recognized DaKey into the main alarm to silence it.

C.   Check for the issue which caused the alarm to sound.

D.   Make any necessary changes (i.e. reattaching a sensor head).

E.   Repeat steps in part V for configuring the system.

F.   Remove the DaKey.

G.   After a less than 5 second delay the system will resume normal operation.

H.   Technical support can be reached at 866-736-6261 (toll free), 815-557-4786 (cellular), or techsupport@sennco.com (email).

VIII. Points of Sensing

A. Micro USB power cable

If the Micro USB power cable is unplugged from the protected device, or from the sensor head, or if it is cut then the main alarm will immediately be triggered.
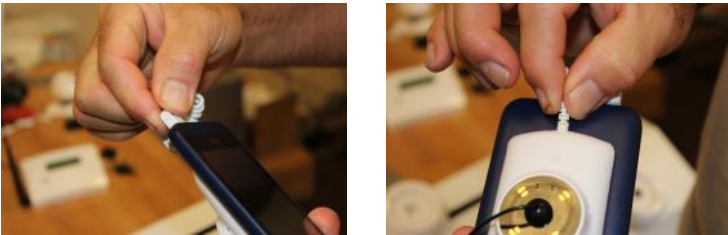
B. Sensor head plunger

If the sensor head is removed from the back of the protected device then the main alarm will immediately be triggered.

C. Sensor head proximity

If the sensor head is outside of the "safe zone" created by the bubble makers for more than 10 seconds then the main alarm will be triggered.

IX. Hard Reset

The entire system can be reset by inserting a recognized DaKey into the main alarm and then holding down the button on the front of the main alarm for longer than 10 seconds.

Questions? Please contact Sennco Solutions technical support at:

Toll free phone: 866-736-6261

Email: techsupport@sennco.com

Notes

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