CW-CON WIRELESS DRIVEWAY SYSTEM INSTRUCTIONS

VERSION 1 - March 2022

1. WHAT'S IN THE BOX

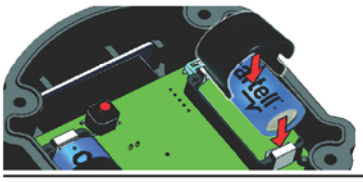
1. SENSOR "PUCK"
2. SOUNDER
3. CR123A BATTERIES WITH BATTERY CLIPS (2)
4. AUGER SCREWS (2)

2. SERIAL NUMBER

There is a barcode serial number on the back of sounder, bottom of puck, and on product box. When calling to talk about your product, please have one of these numbers handy.

3. INSTALLING BATTERIES/LOW BATTERY

1. Use **CR123A** batteries and match polarity with battery terminal in puck.
2. If batteries are put in backwards, they will not make contact.
3. Push batteries in place fully to make contact.
4. Snap plastic battery holder over each battery and onto battery terminal.
5. Sensor will power up automatically when batteries are installed.



LOW BATTERY

When batteries need replacing in sensor, sounder's LED will remain a constant RED. Replace both batteries at the same time.

NOTE: DO NOT USE RECHARGEABLE BATTERIES.

4. PAIRING

YOUR SYSTEM HAS BEEN PAIRED AT FACTORY. THESE DIRECTIONS APPLY WHEN PAIRING ADDITIONAL SOUNDERS.

You can pair up to 30 pucks/sensors with an unlimited number of sounders.

1. Take sensor battery out of sensor you want to pair with sounder.
2. Plug sounder into an outlet. The closer you bring sensor to sounder, the better, but it's not necessary.
3. If a sounder has not been paired to a sensor, the sounder automatically enters pairing mode and says, "There are no sensors paired, pairing enabled."
4. Power up sensor by installing both batteries.
5. Sounder will pair to sensor and say, "Enrollment, Driveway Sensor 1 (or other #). Sensor is now paired," and enters normal operation mode.

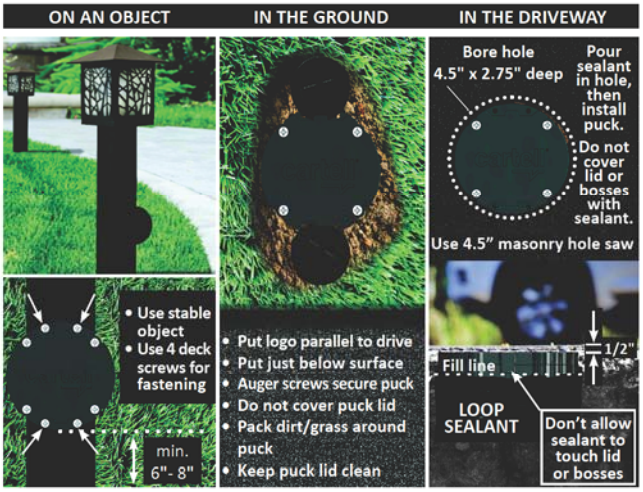
To pair more than one sensor to a sounder (see #10 on back):

1. While sounder is on, press ⊖⊕ buttons together to enter menu mode.
2. Use the ⊖ button to scroll to pairing menu. Press ⊕ to select it.
3. Sounder will say, "Pairing menu selected. Pair sensor now." It will stay in paring mode for 30 minutes.
4. Power up sensor to be paired. It will pair automatically with sounder and sounder will exit pairing mode.
5. Scroll to sound menu and choose sound for that sensor.

Erase all paired sensors from sounder

1. In menu mode, scroll to diagnostics menu. Scroll to "Erase all sensors."
2. Follow the prompts and confirm your request with the ⊕ button.

SENSOR PUCK INSTALLATION DIAGRAM

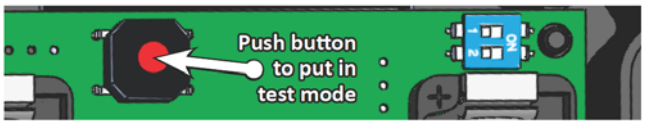


5. TEST MODE FOR SENSOR PUCK

Test mode allows the sensor puck to automatically transmit the radio signal without having to trip the sensor with a vehicle. This is useful when testing radio signal range (see #6 below).

1. Press and HOLD button on sensor puck for 2 seconds
2. The red LED will blink every second when in test mode
3. There will be an immediate transmission
4. Additional transmissions will occur every 10 seconds
5. Test mode will be exited when button is pressed again for 2 seconds
6. Test mode will automatically be exited after 30 minutes

NOTE: you can also use the test mode button to pair sensor to sounder



6. TESTING RANGE

Your system has a radio range of at least 350 feet or over 1000' line-of- sight. To determine range in your application, test before final installation.

Radio range depends on several variables:

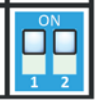
- How the puck is installed (in ground or above ground on post)
- Obstacles blocking radio signal, such as soil, trees, foliage, buildings, concrete, etc.

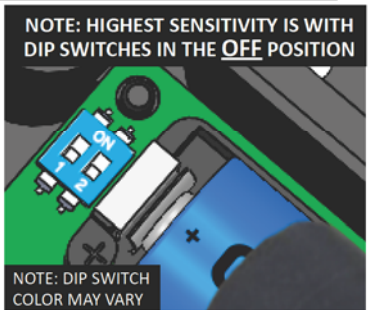
To test range:

1. Put sounder near its final installation place in the home or gate.
2. Put sensor in test range mode (see #5 above).
3. Listen for sounder to sound. If it doesn't, move sensor closer to sounder.
4. Be sure to test again with puck installed in ground (see #8 below).
5. You may need to add a repeater inside the home by changing sounder mode to "Repeater. Do this by scrolling to mode menu and selecting repeater mode (see #10 below).

7. SETTING SENSITIVITY

ONLY ADJUST (LOWER) SENSITIVITY IF PUTTING IN MIDDLE OF DRIVEWAY (see #8 below). IN ALL OTHER CASES USE DEFAULT.

SENSITIVITY ADJUSTMENT	
HIGH (Default) Detects vehicle going 5 MPH 12-14' away 1 & 2 in OFF position	
MEDIUM Detects vehicle going 5 MPH 6-8' away 1 ON & 2 OFF position	
LOW Detects vehicle going 5 MPH 2-4' away 1 & 2 in ON position	



8. INSTALLING SENSOR PUCK

SEE DIAGRAM BOTTOM LEFT COLUMN.

The sensor puck can be installed in the driveway, in the ground, or on an immovable object (post, tree, etc.).

ON AN OBJECT (see illustration bottom left)

1. When range has been tested (see #6 above), seat lid securely on puck with screws provided. Be careful not to strip screws with screw gun. There should be no gap between lid and puck.
2. Find a tree, post, or other object directly beside the driveway.
3. Make sure the object is IMMOVABLE or false alarms will occur.
4. Use the holes on the bottom tabs to screw puck to the object.

IN THE GROUND (see illustration bottom left)

1. When range has been tested (see #6 above), seat lid securely on puck with screws provided. Be careful not to strip screws with screw gun. There should be no gap between lid and puck.
2. Find a spot directly beside driveway.
3. Dig a hole big enough for puck and auger screws, allowing puck's lid to be level with surface of dirt.
4. Secure puck in ground with auger screws, overlapping bottom tabs of puck. If you fail to secure puck, lawn mowers, etc. will pull/suck it up.
5. Pack and tamp dirt around puck, ensuring lid is clean of dirt and all debris.

IN THE DRIVEWAY (see illustration bottom left)

1. When range has been tested (see #6 above), seat lid securely on puck with screws provided. Be careful not to strip screws with screw gun. There should be no gap between lid and puck.

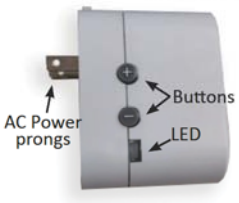
Note: If close to cross traffic, consider turning sensitivity down (see #7 above)

2. Use a 4.5" diameter masonry hole saw to bore a hole for puck. Bore at least 2.75" deep so puck lid will be 1/4" below driveway surface (so it can't be pulled up by snow plows, graters, etc.).
3. Pour loop sealant in hole, careful not to overfill, and put puck in hole.
4. Hold puck down with weight until sealant becomes firm.
5. DO NOT pour sealant over puck lid or bosses to gain access to batteries.

NOTE: SNUG SCREWS IN PUCK LID, BUT DO NOT OVER-TIGHTEN.

WARNING: KEEP LID FREE OF DIRT, GRASS, SNOW, & ALL DEBRIS AT ALL TIMES TO ALLOW RADIO SIGNAL TO TRANSMIT!

9. SOUNDER INTRODUCTION



The sounder is easy to use and plugs into a standard Type A North American outlet. Audio prompts are given when in menu mode.

Your system comes with one sounder factory-paired to one sensor. However, an infinite number of sounders can be paired with up to 30 sensors. A different sound for each sensor can be set by the user. See #10 below for set-up instructions.

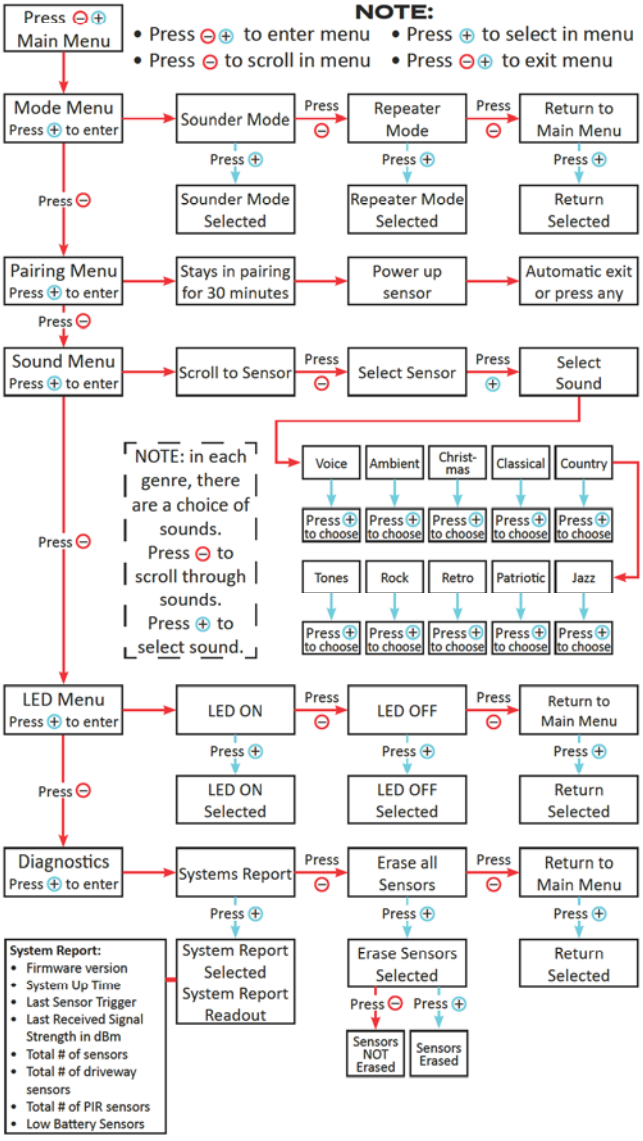
10. SOUNDER INTERFACE

NOTES:

- Press ⊖ to decrease volume
- Press ⊕ to increase volume
- Press ⊖⊕ together to enter main menu
- ⊖ button cycles through menu options
- ⊕ button selects an option
- Menu mode times out after 2 minutes of inactivity
- Press ⊖⊕ together to exit menu mode
- In menu mode, all sensor activity is ignored

NOTE:

- Press ⊖⊕ to enter menu
- Press ⊕ to select in menu
- Press ⊖ to scroll in menu
- Press ⊖⊕ to exit menu



11. SOUNDER & REPEATER MODES

See #10 above. There are two modes of operation: sounder mode and repeater mode.

In **sounder** mode, the sounder listens for sensor events. When it receives an event, the sounder will play the specified sound associated with the sensor. While the sound is playing, the green LED will stay on. When there are no sensor events, the green LED will blink every five seconds to indicate sounder mode.

In **repeater** mode, the sounder does not make sounds when a sensor event is received. Instead, it repeats the event to another sounder or the CW-SYS Integrator. The green LED will blink every 1 second to indicate repeater mode.

12. FIVE YEAR WARRANTY

All Cartell products are warranted against defects in material and workmanship for five years. This warranty does not cover defects caused by, but not limited to: acts of God, improper installation, abuse, fire damage, electrical surges, integrated system failures, improper lid/gasket/battery installation, over-tightening screws, and stripping screw holes.

WARNING: DO NOT SHIP BATTERIES WHEN RETURNING PRODUCT TO CARTELL.

13. TECHNICAL SPECIFICATIONS

Technical Specifications - Sensor "Puck"	
Power Required	2 - CR123A batteries (6 V)
Stand-By Current	22 Microamps (µA)
Alarm Current	130 Milliamps (mA)
Radio Range	Above ground, no obstructions, to 2,500 ft.* Flush with ground, no obstructions, to 1,000 ft.* Increase range with optional Repeater (CW-REP)
Battery Life	1-3 years*
Enclosure Rating	IP68
Strength Rating	9.39 ton-force (8514 kgf)
Temperature	-25° F. – +140° F. (-32° C. – 60° C.)
Dimensions	4.5" dia. x 2.5" H (11.43 cm x 6.35 cm)
Weight	2 lbs. (.90 kg)

* Estimate only. Radio range & battery life depend on many variables. No guarantees.

Technical Specifications - Sounder	
Input Voltage Range	85 ~ 230VAC
Input Voltage Frequency	47 ~ 63Hz
Temperature	-13° F. – +140° F. (-25° C. – 60° C.)
Dimensions	2.5" H x 2.5" W x 2.75" D (6.35 cm x 6.35 cm x 6.99 cm)
Weight	.30 lb. (.14 kg)

14. RETURNING MERCHANDISE

CONSUMER: Contact your reseller.

INSTALLER: CALL BEFORE DIGGING UP OR UNINSTALLING

Call (717) 532-0033, option 1 to troubleshoot and receive a Return Merchandise Authorization (R.M.A.) number. Write R.M.A. number on shipping box and any correspondence included with defective product.

DISTRIBUTOR: Send installers directly to Cartell, citing 717-532-0033 (option 1) as phone number.

15. FCC WARNING

This device complies with part 15 of the FCC Rules. 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. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that of thr receiver.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

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

This Class [B] digital apparatus complies with Canadian ICE-003.

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.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

L'appareil a été évalué pour répondre aux exigences générales d'exposition RF. L'appareil peut être utilisé dans des conditions d'exposition fixes / mobiles. La distance de séparation minimale est de 20 cm.

This equipment complies with Canada radiation exposure limits set forth for uncontrolled environments. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC ID : 2AUXCCWSOU (U.S.)
IC: 25651-CWSOU (Canada)

E3957
AUSTRALIA

CONTACT INFORMATION	
TECH SUPPORT/RMAs	717-532-0033, option 1
SHIPPING	717-532-0033, option 2
ACCOUNTING	717-532-0033, option 3
INSIDE SALES	717-532-0033, option 4
EMAIL	info@cartell.com
ORDERING (Distributors only)	Send POs to: orders@cartell.com
ADDRESS	510 West King Street Shippensburg, PA 17257
WEBSITE	www.cartell.com

WARNING: This product can expose you to chemicals including Acrylonitrile, which is know to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

UN 3091

cartell