CW-HUB WIRELESS HYBRID DRIVEWAY SYSTEM

VERSION 2 - JULY 2026

1. WHAT'S IN THE BOX

1. SENSOR "PUCK"
2. HUB
3. AUGER SCREWS (2)
4. USB-C POWER SUPPLY & CABLE
5. CR123A BATTERIES (2)

2. SERIAL NUMBER

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

PRODUCT CODE — YEAR MADE — SERIAL NUMBER

3. LOW BATTERY INDICATION (see #9 below)

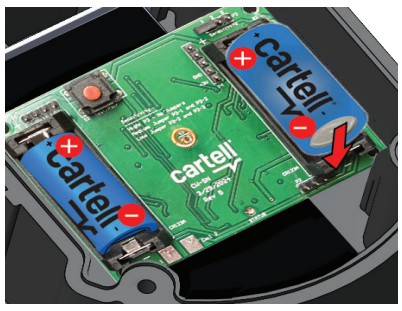
Battery status is displayed in the Cartell App under each sensor. Full power is indicated by a green color (see right).

Lack of power is indicated by a red color (see far right). Replace batteries.

When a vehicle is detected, a notification will be pushed to the App.

This notification will be followed by a second low battery notification (see left).

4. INSTALLING BATTERIES



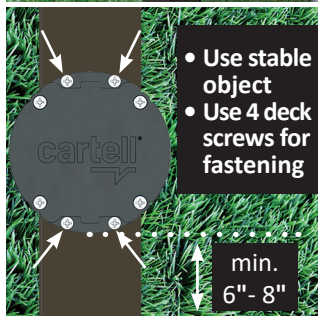
1. Use **CR123A** batteries and match polarity with battery terminal in puck.
2. If batteries are put in backwards, they will not power the unit.
3. Push batteries in place fully to make contact.
4. Sensor will power up automatically when batteries are installed.

Note: Puck lid will keep batteries in place.

REPLACE BOTH BATTERIES AT THE SAME TIME.
DO NOT USE RECHARGEABLE BATTERIES!

WARNING: WIPE CLEAN & DRY THE SENSOR BRIM, LID, and LID GASKET BEFORE SCREWING LID TO HOUSING.

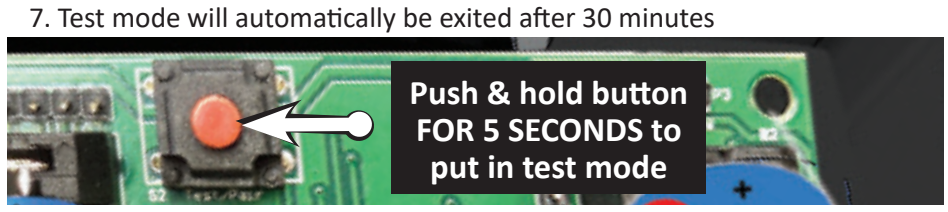
ON AN OBJECT	IN THE GROUND	IN THE DRIVEWAY



5. TEST MODE FOR SENSOR PUCK

Test mode allows the sensor puck to be tripped without a vehicle. This is useful when testing radio range (see #6 below) and solo installations.

1. Press and HOLD button on sensor puck for **5 seconds**
2. The red LED will be solid and dim while waiting the 5 seconds
3. Once the 5 seconds has expired, the LED will be bright red
4. Test mode is activated when the button is released
5. The sensor will trip itself every 15 seconds
6. Test mode will be exited when button is pressed again
7. Test mode will automatically be exited after 30 minutes



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:

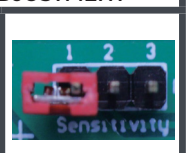
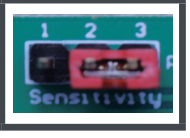
- How the puck is installed (in ground or above ground on post)
- Obstacles blocking radio signal, such as soil, trees, foilage, buildings, concrete, etc.

To test range:

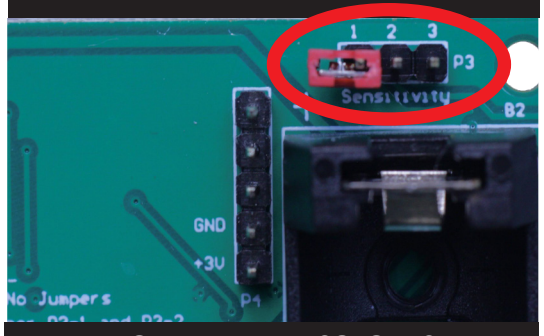
1. Put HUB near its final installation place in the home.
2. You will need to confirm the HUB is receiving the sensor's signal.
3. Put sensor in test range mode (see #5 above).
4. Look on App or wait for push notification from sensor. If you don't receive a notification, move sensor closer until you do.
5. Be sure to test again with puck installed in ground.

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 at 5 MPH 12-14' Jumper on #1	
MEDIUM Detects vehicle at 5 MPH 6-8' Jumper on #1&2	
LOW Detects vehicle at 5 MPH 2-4' Jumper on #2&3	

HIGHEST SENSITIVITY IS DEFAULT



NOTE: JUMPER COLOR IS USUALLY RED, BUT MAY DIFFER.

8. INSTALLING SENSOR PUCK

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

NOTE: SENSOR PUCK DETECTS A VEHICLE GOING 5 MPH AFTER IT PASSES.

ON AN OBJECT (see illustration bottom left)

1. Test range (#6 above), then seat lid securely on puck with screws provided, leaving no gap between lid and puck. Do not over-tighten or strip screws.
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 0.25"- 0.50" 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: SENSOR PUCK AND LID ARE KEYED.
WIPE SENSOR LID, LID GASKET, AND SENSOR BRIM WITH CLEAN CLOTH AND KEY CORRECTLY BEFORE ATTACHING.

9. DOWNLOADING APP

Scan the appropriate QR code below for the Apple or Google app store, and follow the prompts to set up an account.

ANDROID APP ON Google play

Download on the App Store

10. INSTALLING HUB

1. Power your HUB with the 5V USB-C power supply and cable (included)
2. On power up you should see the LED blink blue, red, green
3. Then the LED should blink green every 3 seconds to show the HUB is in access point mode
4. USE your app and follow the instructions to add a HUB. The app will take you through the process of connecting your hub to a 2.4ghz WIFI network.
5. Once you have successfully added a HUB and driveway sensor(s) to your HUB, you can trigger a sensor and see a notification on your phone.

11. HUB LED BLINK CODES

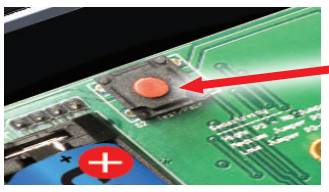
COLOR	TIMING	EXPLANATION
Blue	Solid	WIFI Station, WIFI Connected Only, No connection to server
Green	Blink every 3 seconds	HUB not set up
Green	Solid	WIFI Station, WIFI Connected, and Connected to Server
Green then Blue	On 1 second Off 1 second Repeat	WIFI Station WIFI Disconnected
Blue	On 1 second Off 1 second Repeat	Sensor/component Pairing Mode
Red	On 100ms Off 100ms Repeat	Restore Settings to Factory (Hold in Switch)

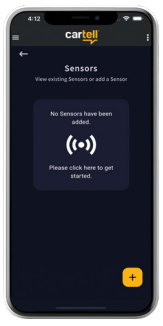
12. PAIRING HUB TO SENSOR

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

You can pair up to 30 pucks with the HUB

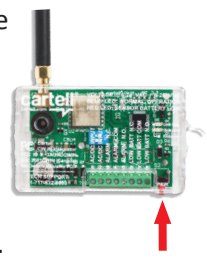
1. Bring sensor close to HUB, power up sensor (#4 above).
2. Open App and click on picture of HUB.
3. In App, click on "Sensors," hit plus icon + bottom right.
4. Follow prompts in App.

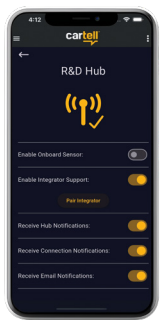




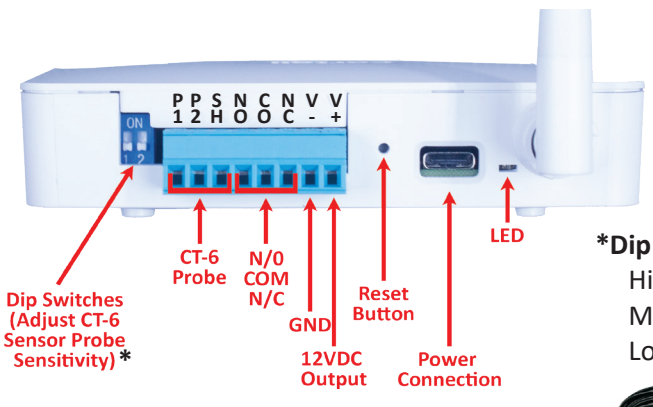
13. PAIRING HUB TO INTEGRATOR

1. Make sure the Integrator is in operating mode (blue LED blinks once every 5 seconds).
2. Press and release the red pairing button on the Integrator (blue LED will blink rapidly).
3. Open App and click on picture of HUB.
4. In App, click "HUB settings."
5. Click "Enable Integrator Support" slider.
6. A "Pair Integrator" button will appear. Click it.
7. Two beeps from the Integrator will indicate it paired and Integrator will automatically exit pairing mode





14. TERMINAL BLOCK HOOK UP



The HUB is a hybrid product that will connect/pair Cartell's CT-6 sensor probe with wired or wireless sounders

***Dip Switch CT-6 Sensitivity:**
High: 1 & 2 off (default)
Medium: 1 on & 2 off
Low: 1 & 2 on

TO CONNECT WIRED SENSOR (CT-6) TO THE HUB:

1. Connect red wire to P1
2. Connect black wire to P2
3. Connect ground/shield to SH

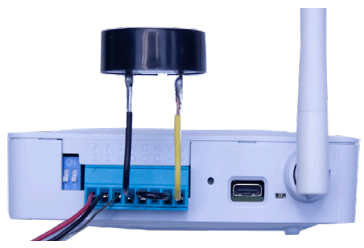
Cartell's legacy CT-6 sensor probe

15. USING HUB 12 VDC OUTPUT

The 12VDC terminal may be used for powering Cartell wired sounders. See cartell.com for wiring instructions.

For Shelly and other smart home devices, please see the terminal block diagram in the previous section (#14).

NOTE: 12VDC terminal supports 100 mA max.



16. RETURNING MERCHANDISE

CONSUMER: Contact your installer.

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.

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

17. THREE YEAR WARRANTY

All Cartell products are warranted against defects in material and workmanship for three 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.

18. 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.

The device has been evaluated portable device RF exposure requirements. The device is kept at least 20 cm away from the user's body.

FCC ID #: 2AUXCCSN & 2AUXCCWHUB (U.S.)
IC#: 25651-CWSN & 25651-CWHUB (Canada)

E3957 AUSTRALIA

Technical Specifications		
	Sensor "Puck"	HUB
Power Required	2 - CR123A batteries (6 V)	5V, 1 amp
Stand-By Current	22 Microamps (µA)	—
Alarm Current	130 Milliamps (mA)	40-80 Milliamps (mA)
Relay Time	—	5 seconds
Relay Contacts	—	SPDT, N.O. or N.C. (Form C)
Relay Contact Rating	—	2 amp/24 VDC (1 mA at 5 VDC min. load)
Radio Range	Tested above ground, no obstructions, up to 2,500 ft.* Tested flush with ground, no obstructions, up to 1,000 ft.* Use optional Repeater (CW-REP) to increase radio range	
Battery Life	1-3 years*	—
Enclosure Rating	IP68	—
Strength Rating	9.39 ton-force (8514 kgf)	-
Temperature Range	-25° F. – +140° F. (-32° C. – 60° C.)	
Dimensions	4.5" dia. x 2.5" H (11.43 cm x 6.35 cm)	3.25" L x 2" H x .875" D (8.25 cm x 5.08 cm x 2.22 cm)
Weight	2 lbs. (.90 kg)	1 lb. (.45 kg)

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

CONTACT INFORMATION	
TECH SUPPORT	717-532-0033, option 1
EMAIL	support@cartell.com
ORDERING (Distributors only)	Email POs to: orders@cartell.com
ADDRESS	510 W 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

VIDEO

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