



**Solar Break Beam
Transmitter
SBB-4000**



USER GUIDE

TOOLS NEEDED:

- Philips Screwdriver
- 7mm Wrench or an Adjustable Wrench

NOTE: Remove the protective plastic covering the lenses and solar panels

PACKAGE CONTENTS:

- Break Beam Pair “A” and “B” (2 sensors)
- (8) M4x10 Pan Head Screws with Flat Washers and Lock Washer
- (8) M4x40 Pan Head Screws
- (8) M4 Nut
- (4) Metal Pipe Mounts
- (4) Pipe Mount Rubber Adapters
- (2) “C” Mounting Brackets
- User Guide

BACK OF BEAMS



X 8

M4x10 Pan Head Screws with
Flat Washers and Lock Washers



X 8

M4x40 Pan Head Screws
with Nuts



X 4

Metal Pipe Mounts



X 4

Pipe Mount
Rubber Adapters



X 2

“C” Mounting Brackets

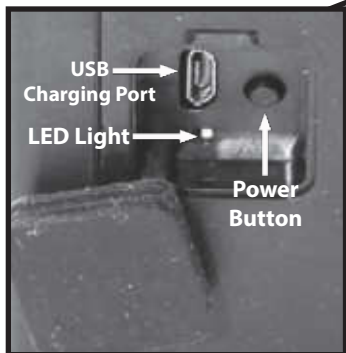
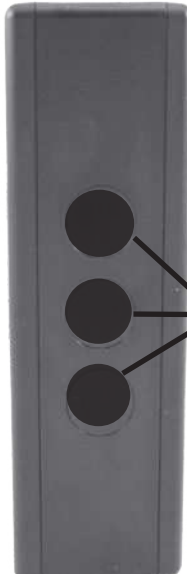
NOTE: *It is recommended to charge both the "A" and "B" unit via a USB Micro charger (not included) for about 4-6 hours before starting the initial set-up.*

PAIRING THE SENSORS:

1. Before mounting the sensors in a permanent location, start by placing them on a table or other flat surface about 6 to 12 inches apart with the three IR lenses pointing towards each other.
2. Press and release the power button on the "B" sensor. The LED will start flashing.
3. Press and release the power button on the "A" sensor and the LED will start flashing green.
4. When the LED stops flashing on the "A" sensor, the pairing is complete (about 30 seconds).
5. Test the pairing by completely blocking the beams. A piece of cardboard can be used or physically move the beams so they are not aligned. The LED on the "A" sensor will flash for about two seconds.

BACK

FRONT



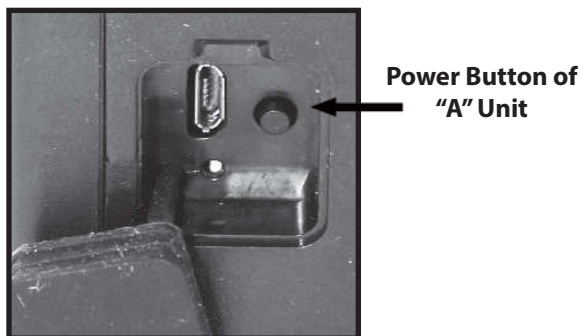
Be sure to re-insert rubber plug before mounting permanently

CODING THE RECEIVER:

1. The SBB-4000 can send a signal to any of the Dakota Alert 4000 series receivers.
2. Please refer to your receiver manual for coding instructions of your particular receiver.
3. To activate the SBB-4000 to send a signal to your receiver, either break the beams while they are paired or quickly press and release the power button on the **"A"** sensor. A signal will be sent to the receiver for code learning.
4. If coding more than one set of beams to a receiver, repeat steps 2 and 3 for each additional pair of beams.

SETTING REMINDER SIGNAL FOR CONTINUOUSLY INTERRUPTED BEAMS:

1. If the beams are continuously interrupted, the **"A"** sensor will send a reminder signal to the receiver. The factory default is to send a signal every 20 seconds if the beams are continuously interrupted.
2. To change the reminder duration to 5 minutes, press and hold the power button of the **"A"** sensor for 5 seconds then release. The LED will start flashing red.
3. To change back to the 20 second reminder duration, press and hold the power button of the **"A"** sensor for 5 seconds then release. The LED will now flash green.
4. After you are finished pairing, coding, and setting the reminder time, insert the rubber plugs into the holes near the power button on both the **"A"** and **"B"** side. To ensure that water does not enter the beams during outdoor use.

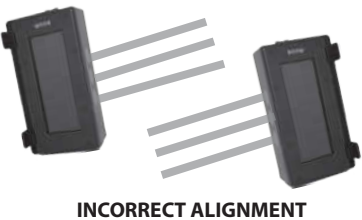
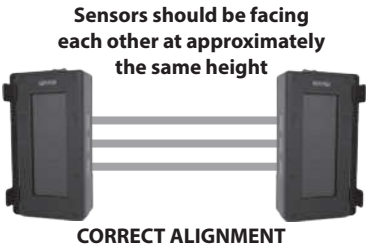


***Be sure to re-insert rubber plug
before mounting permanently***

MOUNTING THE SENSORS:

Before mounting, choose a suitable location:

- The recommended mounting height is about **3 feet**. This will help to avoid false alerts from small animals crossing under the beams.
- The sensors can be mounted up to 300 feet apart facing each other.
- Mount the sensor on a solid object such as a wall, post, or pipe.



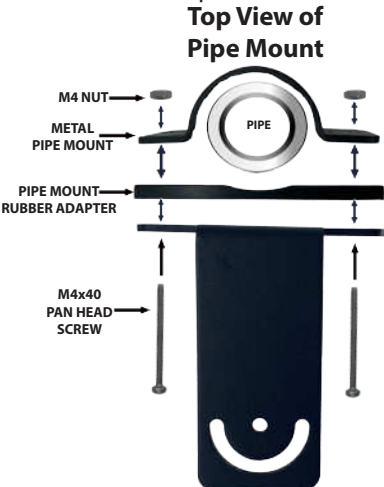
Mounting to a flat surface

- Use appropriate screws or fasteners (not included) to mount the back of the “C” bracket directly to a flat surface such as a wall or wood post.



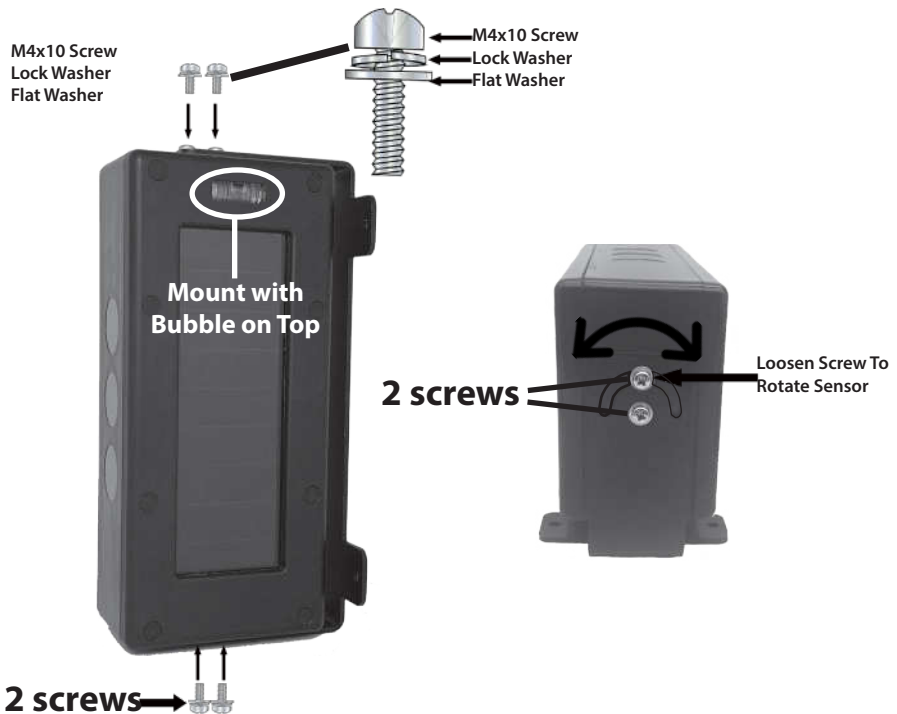
Mounting to a pole or pipe

- Use the provided screws (M4x40 Pan Head Screw and Nut), pipe mount and rubber adapter to connect the “C” bracket to the pipe.



MOUNTING SENSORS TO THE “C” BRACKET:

1. Make sure both the “A” and “B” units are powered on and the **rubber plugs are inserted into the power button recess.**
2. Use the provided small screws, split ring lock washers and flat washers to mount the “A” and “B” beams to the “C” brackets.
3. Align the “A” and “B” units so the lenses are pointing towards each other.
4. The beams can be rotated inside the “C” bracket by loosening the screws on the top and bottom of the sensor to help achieve alignment. After rotating the sensors re-tighten the screws.
5. If the beams are paired, you will get a signal when you walk between the beams. If you get a signal every 20 seconds (5 minutes optional), this is the reminder signal and the beams are not aligned. Slightly reposition the beams until the reminder stops and the beams are activated by walking between them.



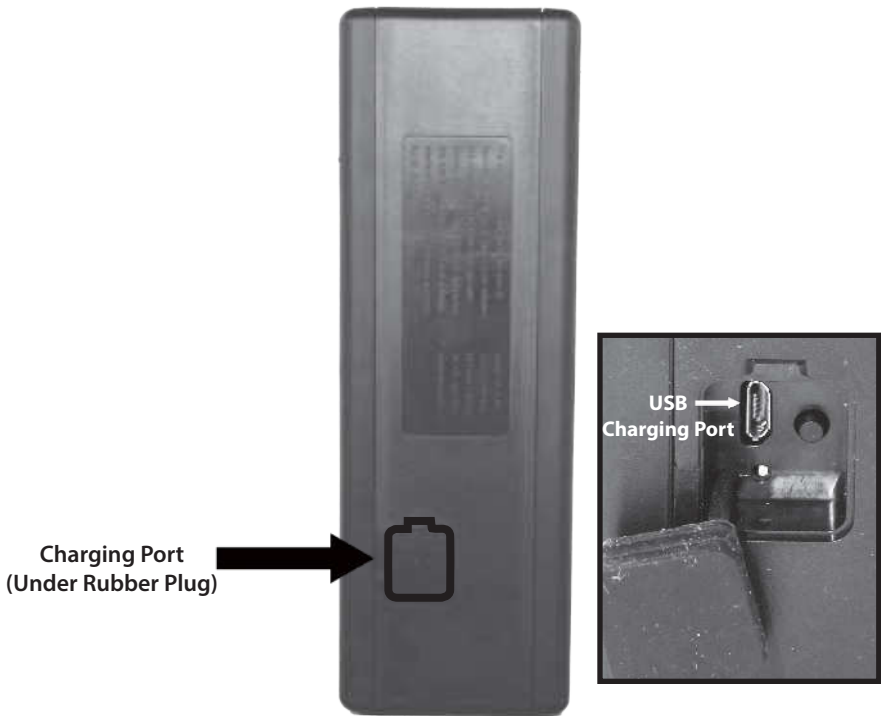
**WHEN MOUNTED, THE LEVEL BUBBLE MUST
BE TOWARDS THE TOP**

RECHARGING THE BEAMS:

The beams will charge automatically outdoors with the built-in solar panels. If the beams are used in an interior location with no light, they can be manually charged.

1. For interior locations, remove the rubber plug from the power button.
2. Locate the USB Micro charging port.
3. Connect a USB Micro charger (not included) to the port.
4. ***Once finished charging insert the rubber plug back into the recess.***

NOTE: You can either leave the charger connected indefinitely or you can fully charge the beams periodically. When the beams are fully charged the built-in batteries will usually hold a charge for about a month, depending on activations.



***Be sure to re-insert rubber plug
before mounting permanently***

TROUBLE SHOOTING:

If you are getting false signals:

- Make sure there are no tree branches or other obstructions that may be periodically blocking the beams.
- If the signal is occurring every 20 seconds (5 minutes), this indicates that the beams are either misaligned or there is something continuously blocking the beams.
- You may receive false signals during extreme rain, snow, or fog.
- If the false signals are occurring every 20 seconds (5 minutes) the battery may be dead in the B unit. Manually charge the B unit via USB micro for several hours, then turn on the B unit by pressing the power button.

If you are getting no signals:

- Make sure both the A and B units are powered on.
- Make sure the beams are coded to your receiver.
- Make sure the beams are charged. You may need to manually charge with a USB Micro charger.
- Move the beams closer to your receiver.
- Keep the A sensor away from large metal objects that may interfere with the radio signal.

Specifications:

- Power source: 18650 rechargeable lithium battery, solar charger or USB Micro (not included).
- Frequency: 433.92 MHz
- Wireless range: up to 1 mile*
- Maximum detection range: Up to 300 feet.*
- Operating temperature: -20 to 120F.

*Actual range will vary depending on local terrain and obstructions.

Tech Support:

If you have any troubles using this product after reading the manual, please contact us. You can reach us by phone at 605-356-2772 from 8:30 Am to 5:00 PM Monday through Friday (Central Standard Time). We will be happy to answer any questions and help in any way we can.

Safety information:

- Only use this product for the detection of moving objects such as people or vehicles.
- Do not disassemble or attempt to repair the product.
- Do not install this unit with any other infrared detectors as this may cause false signals.
- Do clean and inspect the beams regularly for proper use. If any trouble is found, please contact Dakota Alert, Inc.

Warranty:

Dakota Alert warrants this product to be free of defects in materials and workmanship for a period of one year from the date of purchase. This warranty does not cover damage resulting from accident, abuse, act of God, or improper operation. If this product does become defective, simply return it to Dakota Alert. Please include a note describing the troubles along with your name and return address as well as the original sales receipt. If the product is covered under the warranty it will be repaired or replaced at no charge. If it is not covered by the warranty, you will be notified of any charges before work is done.

Legal Notices:

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. 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 to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



WARNING: Cancer and Reproductive Harm. Go to www.P65Warnings.ca.gov for more information

SBB 4000 WORKS WITH OTHER DAKOTA ALERT 4000 SERIES PRODUCTS

DCR 4000 Receiver (no relays)



The **DCR-4000** is a receiver that will work with any Dakota Alert 4000 transmitter. This receiver has 12 different chimes/tunes available so each transmitter can be distinguished by the sound you hear. An extra receiver can be placed in an out building or on a different floor of your home.

RE-4k+ Receiver (2 relay outputs and one 12 VDC output)



The **RE-4k Plus** is a receiver that will work with any Dakota Alert 4000 Series wireless transmitter. The receiver is simple to program and can take signals from up to 16 different transmitters. There are 16 different chimes/tunes available so each transmitter can be distinguished by the sound you hear. The receiver also has two form C relay outputs as well as one 12 VDC output. The outputs can be selected for 1, 5, 15 seconds or 5 minutes. Each sensor can be set to independently select the output(s), time duration, sound and flashing LED. An extra receiver can be placed in an out building or on a different floor of your home.

PR-4000 Portable Receiver



The **PR-4000** receiver is compatible with all Dakota Alert 4000 series transmitters. It can receive and store alert signals from up to 16 different 4000 series transmitters. When a signal is received, the zone will be displayed on the LCD screen. The PR-4000 can be set to give an audible tone or silent vibrate alert. It can store up to 200 event logs for each of the zones with a time and date stamp. The portable receiver is powered by a rechargeable Li-Ion battery which can hold a charge for up to a week.



DCMT 4000 Transmitter

The **DCMT-4000** motion detecting sensor operates on one 9-volt battery (not included) and detects a person or vehicle passing by out to about 100 feet.



UT 4000 Transmitter

The UT-4000 operates on a 3-Volt lithium battery (included) and has several different methods of activation. The UT-4000 has a push button that can be used as a panic button or a wireless doorbell. There is also a magnetic door/window contact and terminals for either a normally open (N/O) or a normally closed (N/C) input. These inputs can be used with any sensor contacts.



DCPT 4000 Transmitter

The DCPT-4000 transmitter operates on three CR-123A batteries (included) and has 50 feet of direct burial wire connecting the probe to the exterior case. The probe is buried parallel to the driveway. It detects vehicles passing by within approximately 10-12 feet.



DCRH 4000 Transmitter

The DCHT 4000 transmitter operates on one 9-volt battery (not included) and has 25' of 3/8" diameter exterior hose that lies across the drive. When a vehicle drives over the hose, a signal is sent to the receiver up to about one mile* away.

Dakota Alert, Inc.

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Dakota Alert®
WIRELESS SECURITY EQUIPMENT

**Wireless
Smart Receiver**
SR-4000

USER GUIDE

www.dakotaalert.com





Important Notice:

The SR-4000 and Dakota Alert App are reliable under normal use. However, due to possible network or connectivity issues that could cause delays or missed notifications, these products must not be used in life- or safety-critical situations.

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The SR-4000 works with any Dakota Alert 4000 Series Sensor



Do not plug the receiver into power until you are at Step 8

Step 1: Download the **Dakota Alert App**



- Search for **Dakota Alert** in your app store or scan the QR code above.
- Make sure your phone is connected to your local Wi-Fi network.

Note: *If the SR-4000 loses Wi-Fi connection, a single blue LED light will blink slowly. If this occurs, check the local router for any internet interruption.*

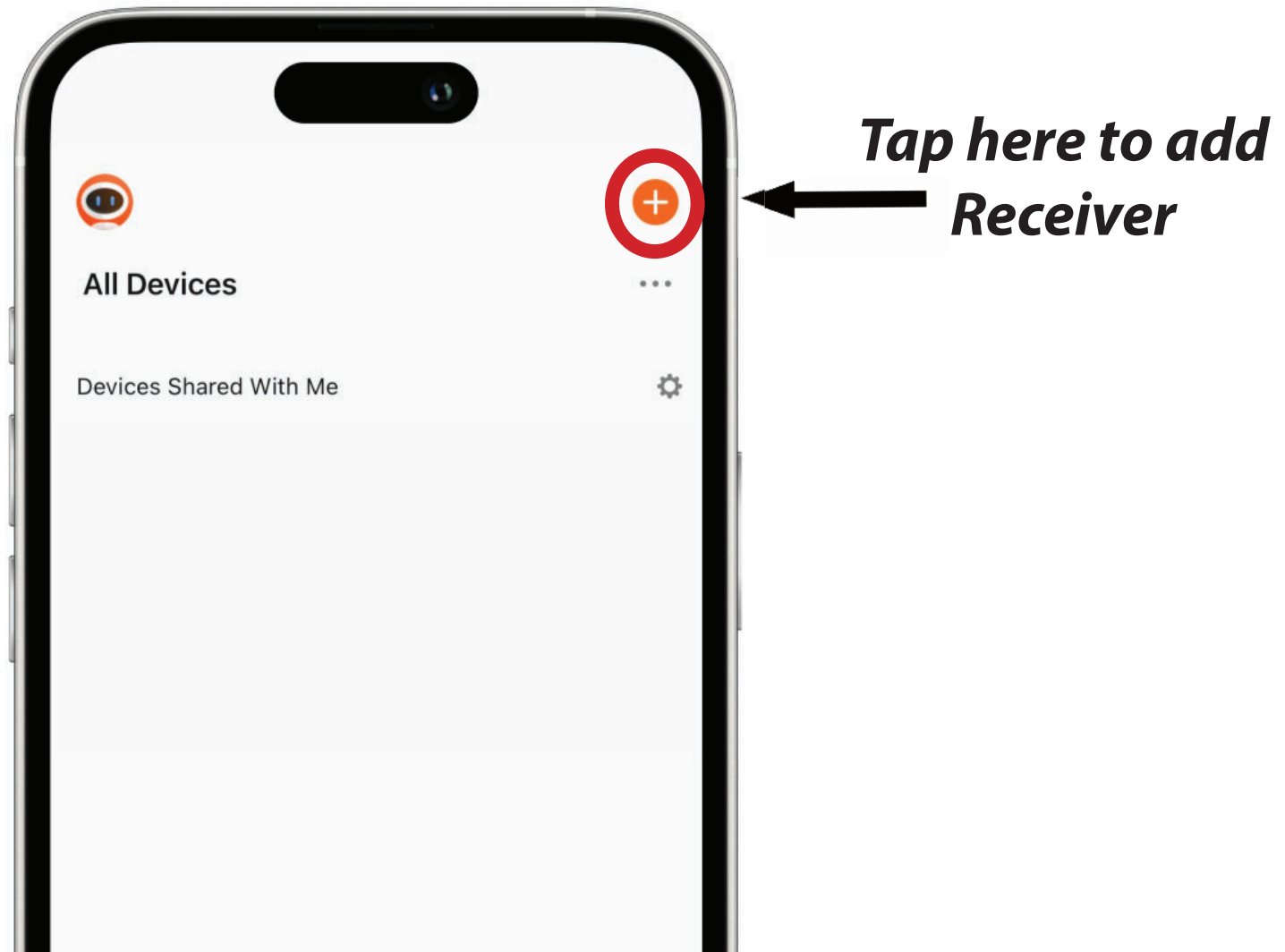
Step 2: Follow the sign up directions for new users or login (for existing users).

Step 3: Once the app is downloaded, make sure the phone's Wi-Fi, Bluetooth and Location are all turned on and allow access for the initial set up.

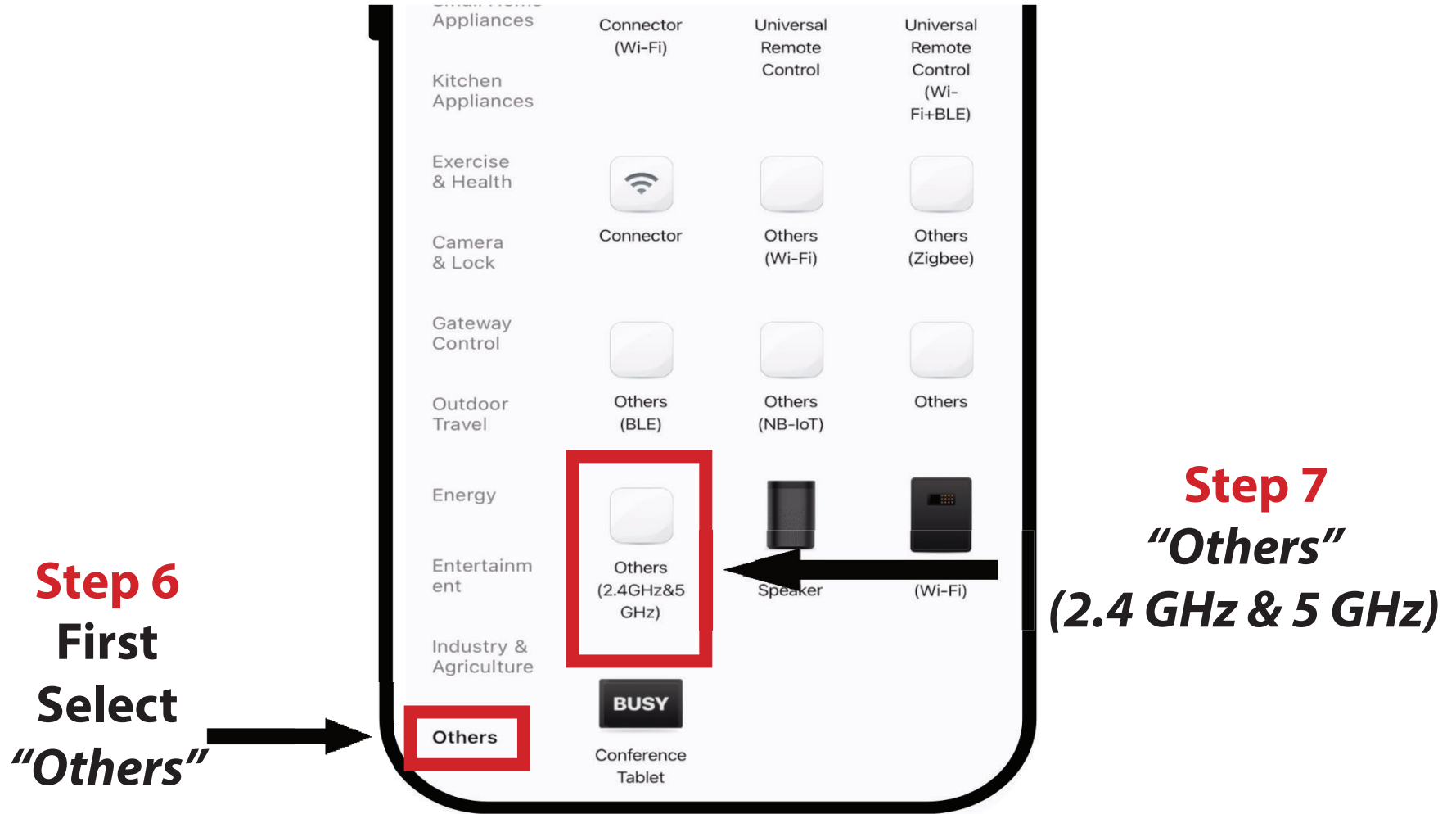


Step 4: Open the Dakota Alert App

Step 5: To add the SR-4000, tap the “+” in the upper right corner.

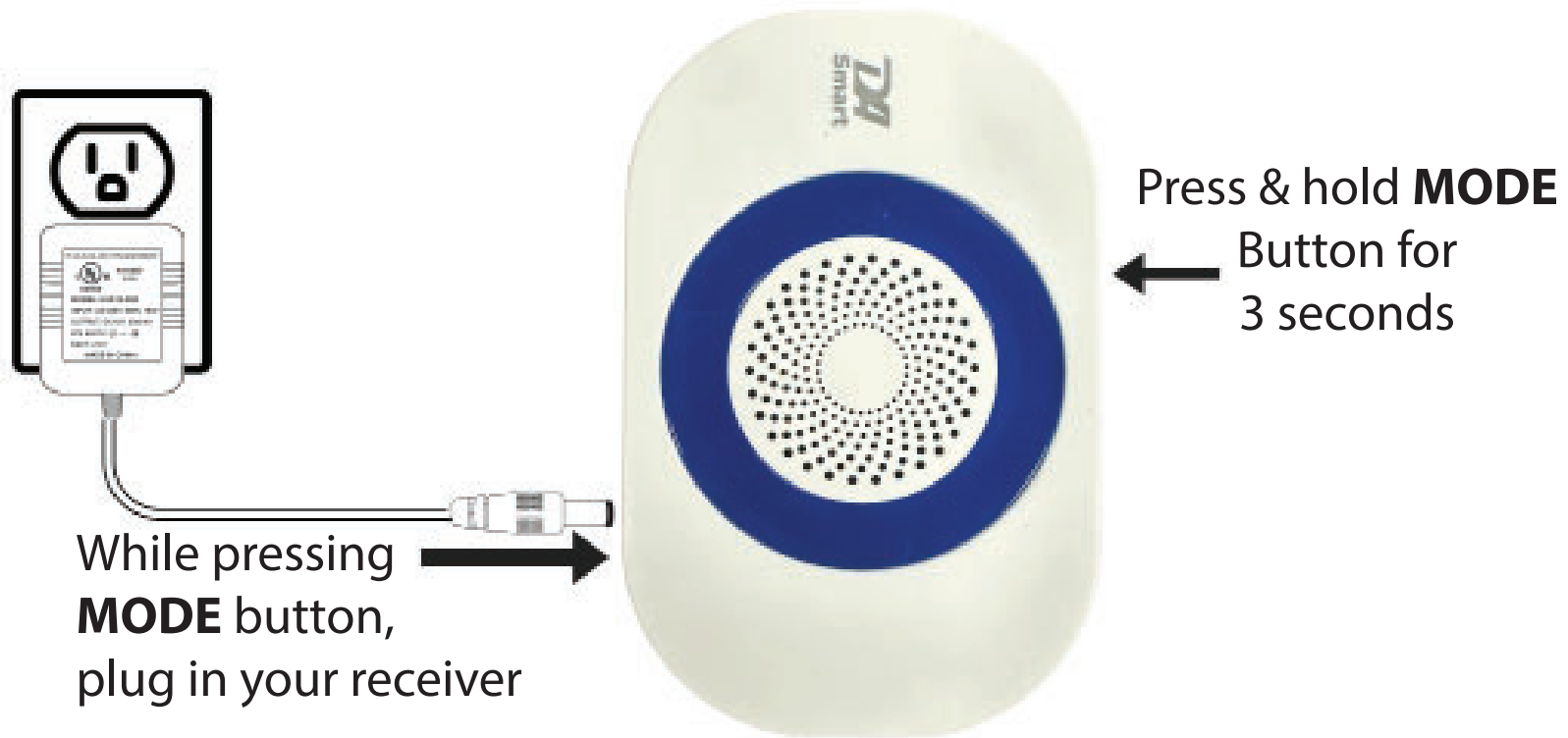


Step 6: At the “Add Device” screen, scroll to the bottom of the list on the left side and select “Others”.



Step 7: Select “Others (2.4GHz & 5GHz)” from the list on the right.

Step 8: With the receiver unplugged, press and hold the “MODE” button for 3 seconds while you plug in the power cord at the same time.



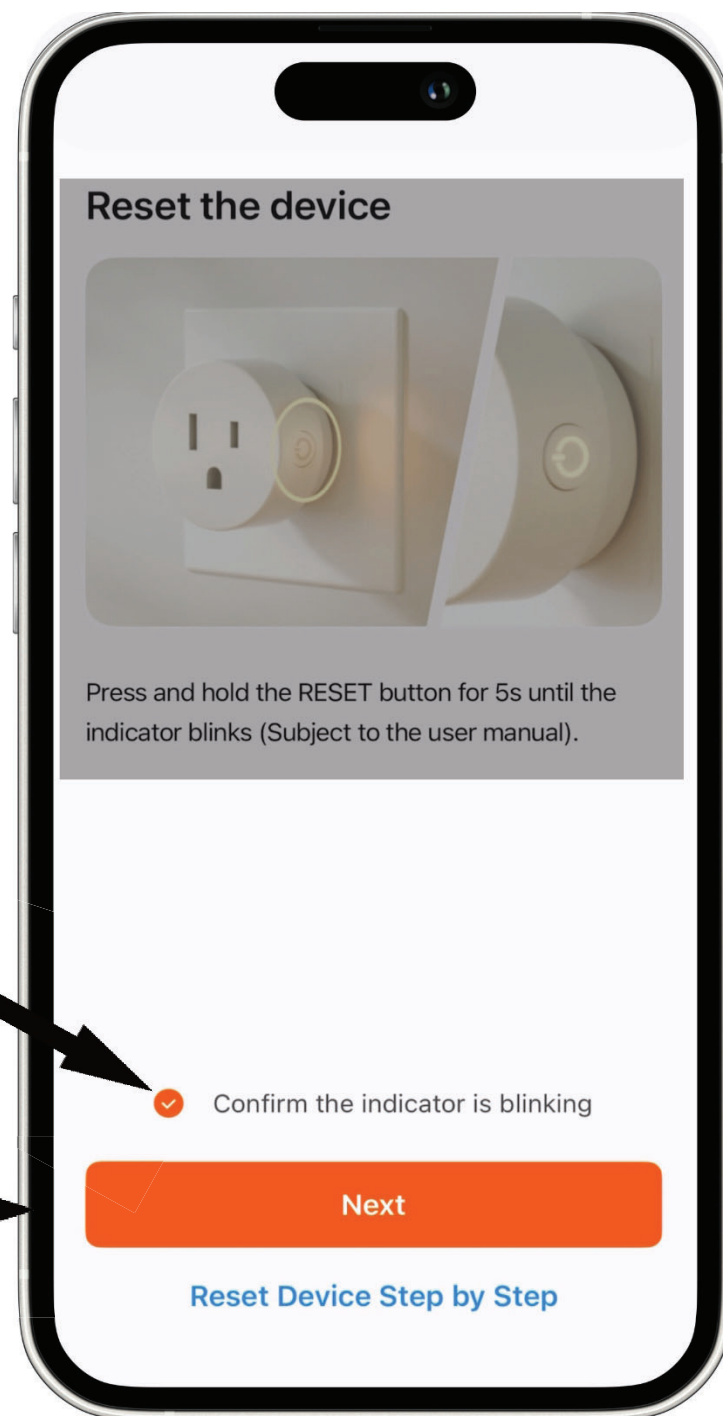
Step 9: After plugging in the power cord, release the “MODE” button after 3 seconds. A single blue light should be blinking rapidly on the receiver. ***NOTE: After you release the MODE button it may take up to 10 seconds for the blue light to start blinking rapidly.***

If blue light is not blinking rapidly, repeat steps 8 and 9.

The image at the top of the page is for reference only. Please continue with the steps listed below.

Step 10: If the blue LED light is blinking rapidly on the receiver, press "Confirm".

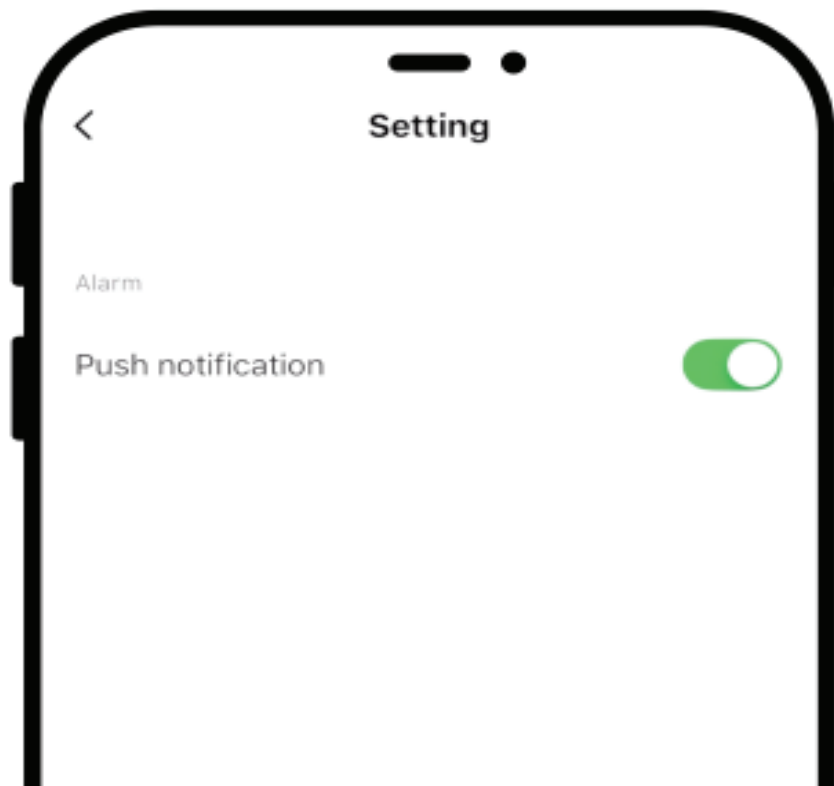
Step 11: Then press "Next"



Step 12: In the app, press “Confirm” and enter your Wi-Fi password.

- *When this step is successful, the blue LED will stop blinking and the entire circle will light up with the blue LED lights*

Step 13: In the “Setting” make sure “Push Notification” is turned on.
Now you can edit the SR-4000 and rename it how you choose



Programming 4000 Series sensors to the SR-4000 Receiver

Note: If you are using the SR-4000 relay and 12 VDC output feature skip to the “Advanced Set Up” section on page 12

Basic Receiver Setup:

1. Place your receiver and transmitter(s) next to each other. *Be careful not to activate your transmitter until you select the tune you want.*
2. Press and hold the **MODE** button for three seconds until all the LEDs flash and start blinking slowly.
3. Press the  (volume) button repeatedly until you find the tune you want to sound when the transmitter is activated.

1	Ding Dong (high)	5	Alarm/Siren	9	William Tell	13	Beep (high)
2	Ding Dong (low)	6	Coo Coo Clock	10	Canon in D	14	Beep (low)
3	Westminster	7	Bird Chirping	11	Morning	15	Beep, Beep
4	Fur Elise	8	Twinkle Twinkle	12	Toreador March	16	Beep, Beep, Beep, Beep

4. After you choose a tune, activate the transmitter (for example, press its button or wave your hand over its motion sensor). The receiver emits a short beep to confirm the transmitter has been programmed.

Tip: If you pick the wrong tune, press the volume button again to choose a new sound, then reactivate the transmitter.

5. If you are programming more than one transmitter, repeat steps 3–4. You can program up to 16 sensors to your receiver.

6. After your transmitter(s) are programmed, press and hold the **MODE** button until the LEDs stop flashing.

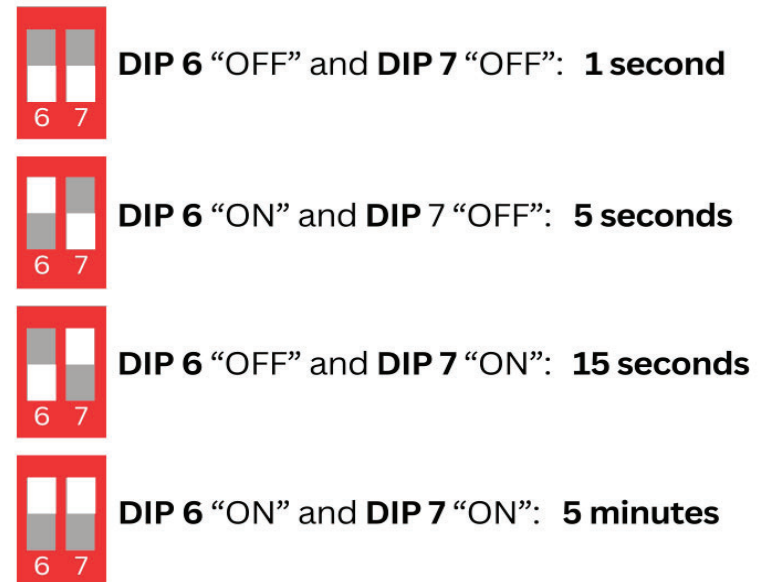
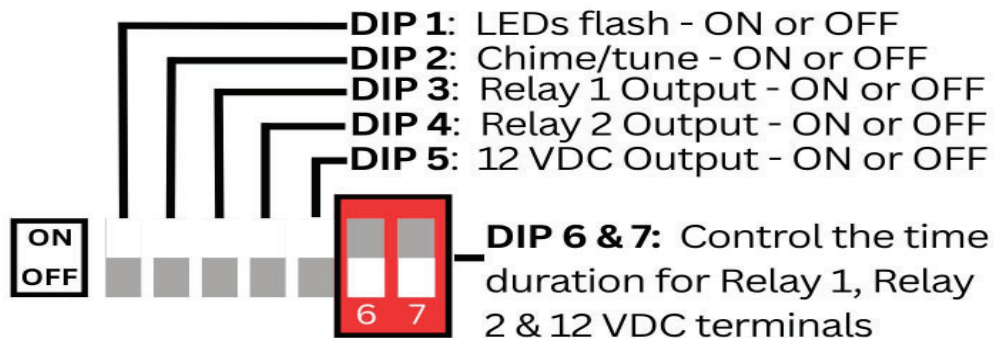
7. To test the transmitter tune, activate the transmitter. You'll hear the selected tune through your receiver and the LEDs will flash.

*You are now ready to assign names to the
programmed sensors in the Dakota Alert App
Go to page 17*

Advanced Receiver Setup:

NOTE: DIP switch settings only apply while in programming mode.

1. Place the receiver and transmitter next to each other.
Do not activate the transmitter until the sound and DIP switches are set.
2. Press and hold the MODE button for 3 seconds until all LEDs flash and begin blinking.
3. Set the DIP switches to control how the receiver responds to a signal.
See diagrams below:

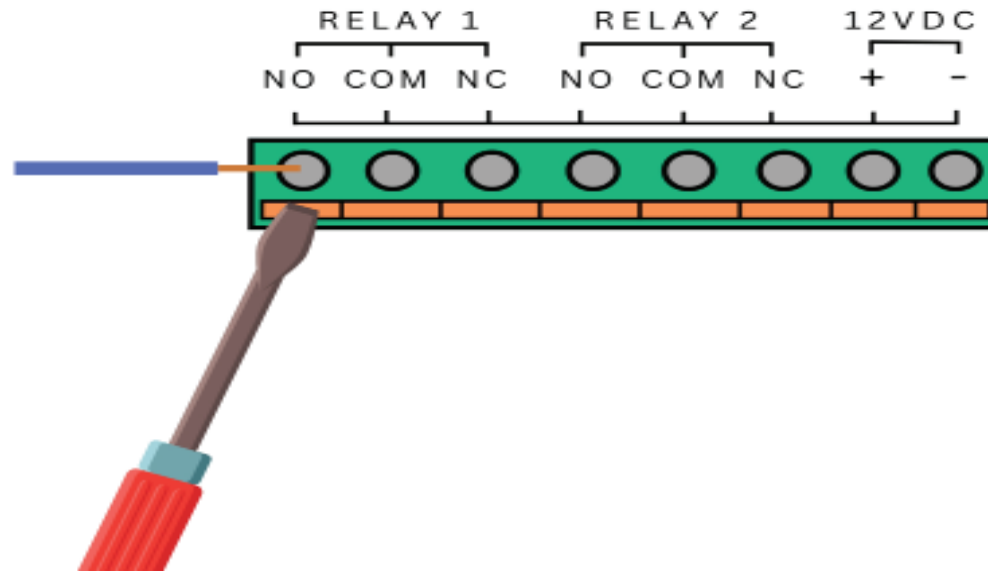


4. Press and release the  volume button repeatedly until you find the tune you want to use for the transmitter.
 5. After setting the DIP switches and selecting the tune, activate the transmitter (e.g., press its button or wave at the motion sensor).
 6. The receiver will beep to confirm it has been coded.
- Tip: If you pick the wrong tune, press the volume button again to choose a new sound, then reactivate the transmitter.***
7. To program more transmitters, repeat steps 3–5. You can program up to 16 sensors to your receiver.
 8. When finished, press and hold the MODE button until the LED lights stop flashing.

***Your receiver is now programmed.
Changing the DIP switches while not in programming mode
will not change relay or 12 VDC settings.***

Connecting Wires To The Terminals:

The SR-4000 receiver has two relay outputs (NO, COM, NC) and a 12 VDC (+ and -) output.



1. To connect lead wires to the terminals, strip off 3/8" (10mm) of insulation from the end of the wire.
2. With a small screwdriver, press the orange button to open the terminal.
3. Insert the bare end of the wire into the terminal opening, then release the orange button. The terminal clamps down on the wire.
4. Pull gently on the wire to make sure the connection is secure.

Adjusting The Volume:

Press the  volume button repeatedly to adjust the volume(4 levels and off). The LEDs show the volume level for four seconds.

Low Battery Indicator:

If the SR-4000 plays your transmitter's tune twice and the LED blinks slowly for ten minutes after the transmitter is activated, your sensor's battery is low. Replace the battery.

Canceling Output Signals:

After the SR-4000 receives a signal, the relay and voltage outputs activate, the chime sounds and the LED flashes for 15 seconds. If you want to stop these actions after they have started, briefly press the MODE button. The receiver resets and is ready to be activated again.

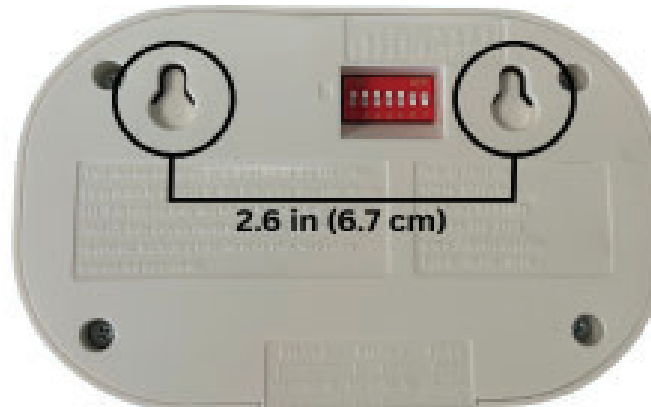
Deleting All Sensors From The Receiver:



Press the **MODE** button for three seconds. Once lights start flashing, press and hold the volume  and **MODE** button together until the four lights flash quickly and turn off.

Mounting The Receiver:

The SR-4000 has an internal antenna. To get the best radio range we recommend mounting the receiver on a wall. To mount the receiver attach 2 screws or nails 2.6 inches (6.7 cm) apart, then hang your receiver using holes on the back.

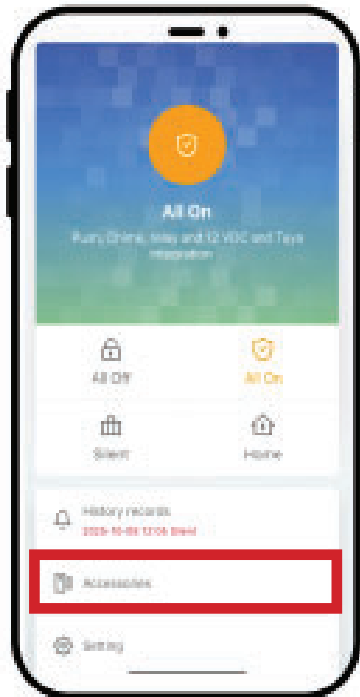


Naming Dakota Alert 4000 Sensors in the App

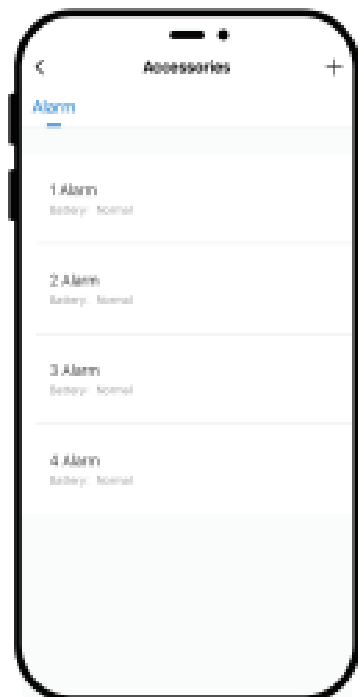
Step 1:

- In the app, go to the “Accessories” section (bottom menu).
- You will see a list of sensors (alarms) in the order they were programmed.

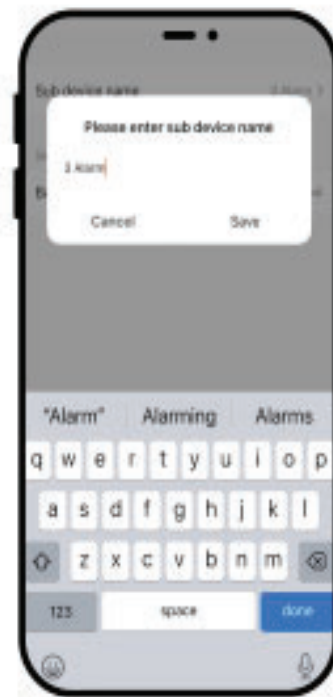
Step 2: Tap on each alarm to rename it. Once you change the name select “Save”>“Confirm”>“Save”



Select
“Accessories”



Select
the alarm you want to
rename

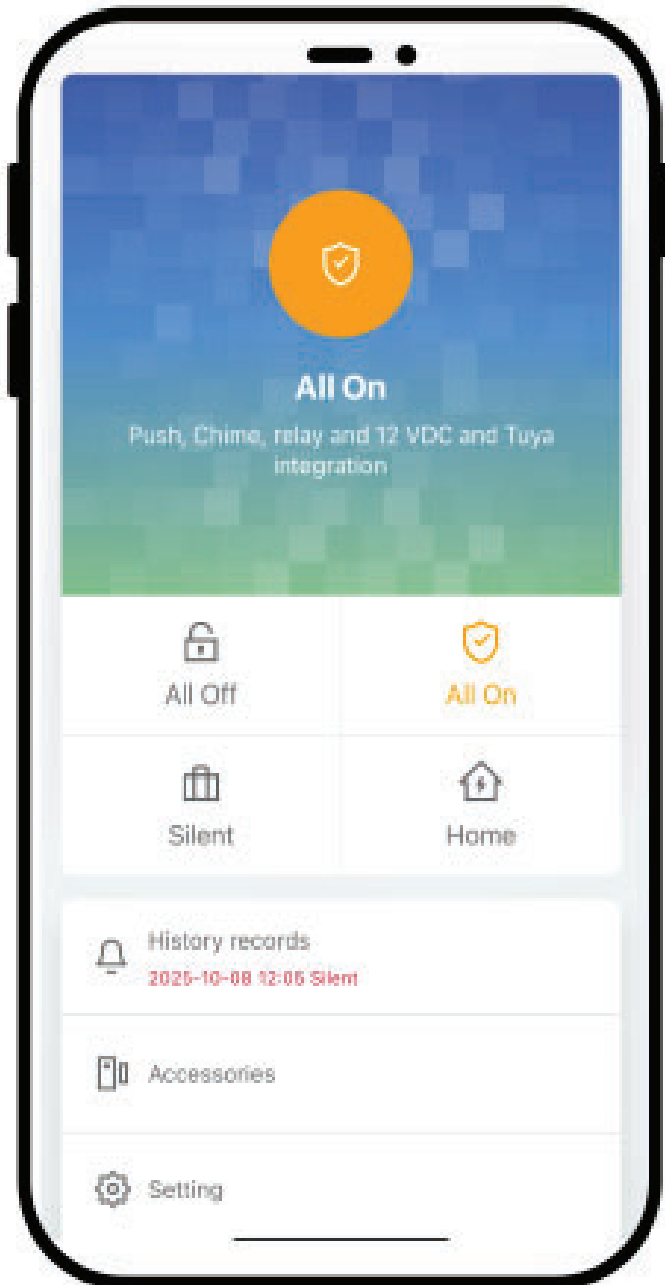


Select “Sub device
name >” next to the
alarm, then type a new
name & “Save”



After you confirm the
name select “Save”
again, repeat for each
sensor

App Menu:



All Off: The receiver will not have any function.

All On: Push notification, chime, relay and 12 VDC will all be active .

Silent: Push notification only.
No chime, relay or 12 VDC.

History: This will give you a time and date stamp for the most recent activations.

Specifications:

- **Power Supply:** 12 VDC, 500 mA
- **Wireless Range:** Up to 1 mile (1.6 km)*
- **Dimensions:** 5X3.3X1.3 in. (12.7X8.3X3.2 cm)
- **Operating Frequencies:** 433 MHz

*Actual range will vary depending on terrain and obstructions

Tech Support:

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- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

 **WARNING:** Cancer and Reproductive Harm. Go to www.P65Warnings.ca.gov for more information.

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