Care@Home™

Voice Panic Detector

User Guide

ESUGSC018

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1. Overview

The Voice Panic Detector (VPD) is a stationary emergency button with:

- Intelligent Voice Activation™ (IVA) technology
- Voice extender capability

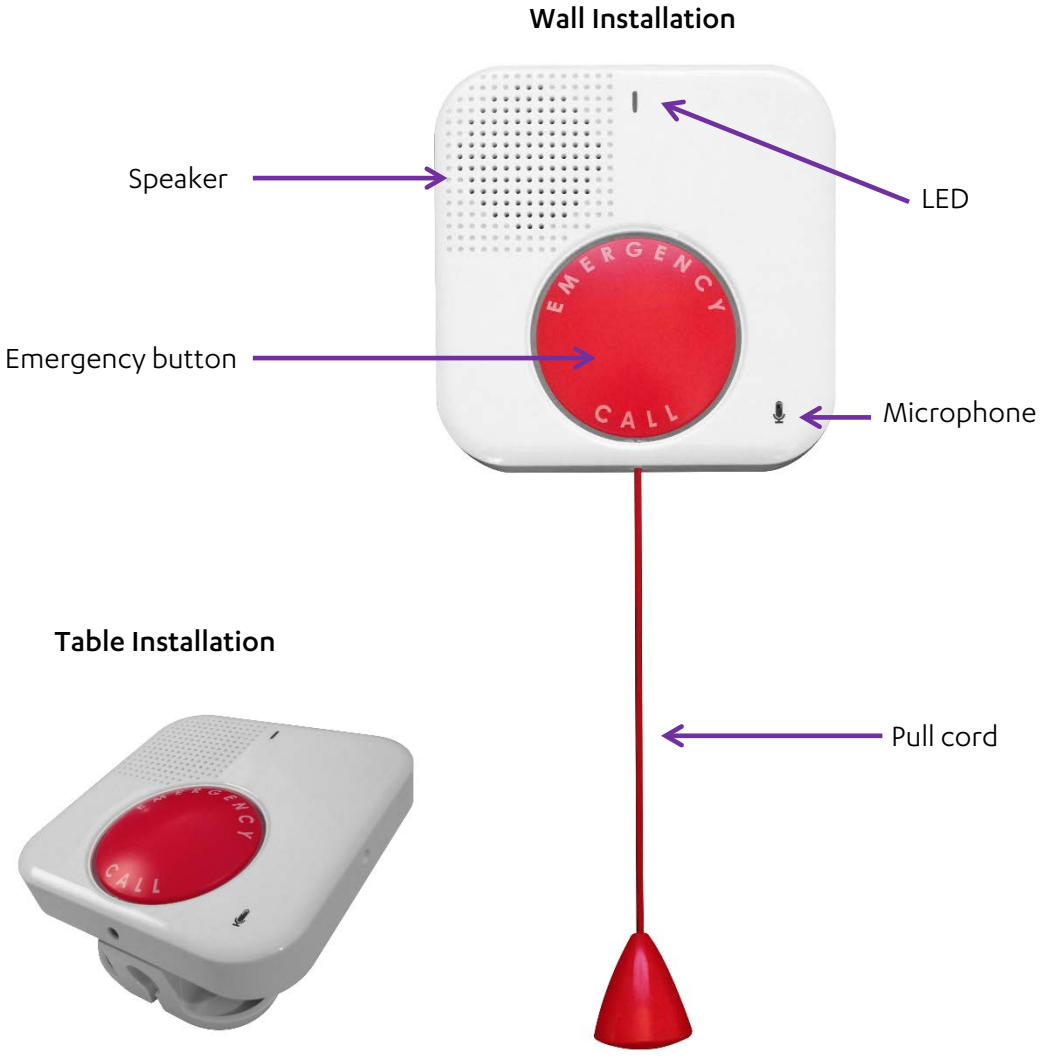

Figure 1: Voice Panic Detector

1.1. Intelligent Voice Activation™ (IVA) Technology

IVA™ technology allows residents to use the VPD to literally call for help. The technology recognizes a specific spoken phrase that triggers an alarm and sends an emergency notification to the monitoring station.

Ways to Get Help

Call out the trigger phrase

OR

Press the **Emergency** button

OR

Pull out the cord

1.2. Voice Extender Capability

Voice extender capability enables the HSP or caregiver to use the VPD to communicate with a resident who has made an emergency call. The ability to talk with the resident in such circumstances, even if the resident is not close to the Control Panel (CP), allows the HSP or caregiver to:

- Make a more informed decision about the appropriate response
- Give the resident first aid
- Assure the resident that help is at hand
- Easily and quickly identify false positives

For more information, refer to 4.5 Voice Extender Capability in Action on page 13.

2. Installing the VPD

Training Video

The VPD can be installed on a table or on a wall.

You need:

- Two 1.5 V C alkaline batteries – the batteries are not included
- A standard Philips screwdriver if you want to secure the top and bottom of the VPD using the two supplied self-tapping KB 2.2 x 6 screws

To install the VPD:

1. Choose an installation location.
   - It is recommended to install the VPD in the bathroom, living room, or bedroom.
   - If you are installing the VPD on a wall, the recommended height is 1.4 to 1.5 m (4.6 to 4.9 ft.).
   - If you are installing the VPD on a wall, choose a flat, smooth surface.
2. Release the back cover of the VPD:
   a. Place your thumb on the pull cord connector.
   b. Place your index finger in the notch at the top of the VPD.
   c. Pull open the VPD.

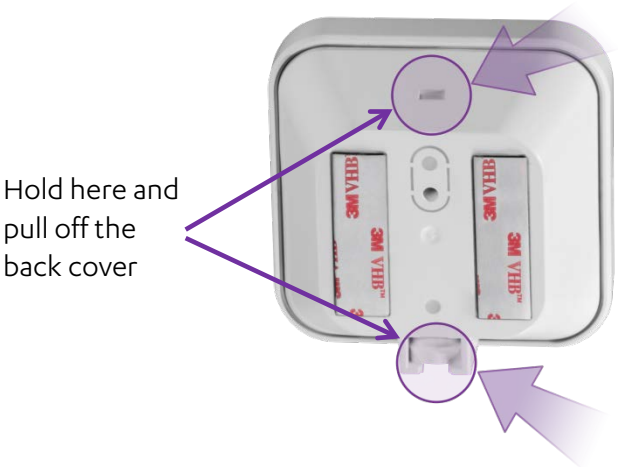

Figure 2: Pull Open the VPD

3. On the control panel (CP), press 

for five seconds.
4. The CP beeps and the ring 

lights up in **Blue** with a circular movement effect.
5. Move the VPD at least 2 m (~6 ft. 7 in.) from the CP.
6. Insert two 1.5 V C batteries, observing the correct polarity.

Figure 3: Insert the Batteries

WARNING! A new battery can cause damage if it is incorrectly installed.

The VPD has powered up successfully when the LED lights up red.

When the pairing succeeds, the CP beeps and the ring around the CP **Emergency** button lights up blue and blinks three times.

7. Close the VPD by aligning the tamper pin with the tamper switch.

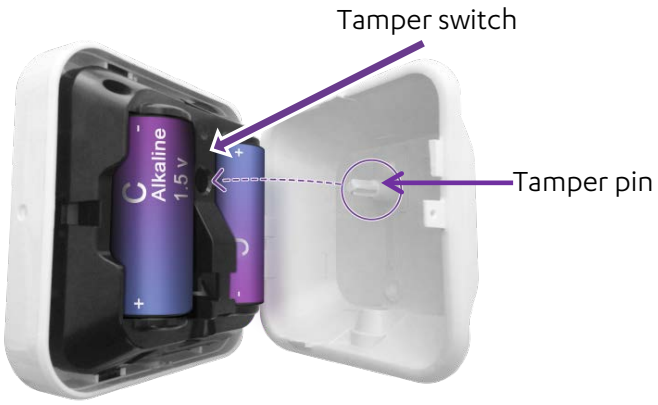

Figure 4 :Align the Tamper Pin to Close the VPD

8. For added strength, secure the top and bottom of the VPD by using one of the supplied KB 2.2 x 6 screws in each of the left and right side holes.

Figure 5: Screw the VPD Together

9. To install the VPD on a table, attach the table mount to the VPD and press the tab until it clicks into place.

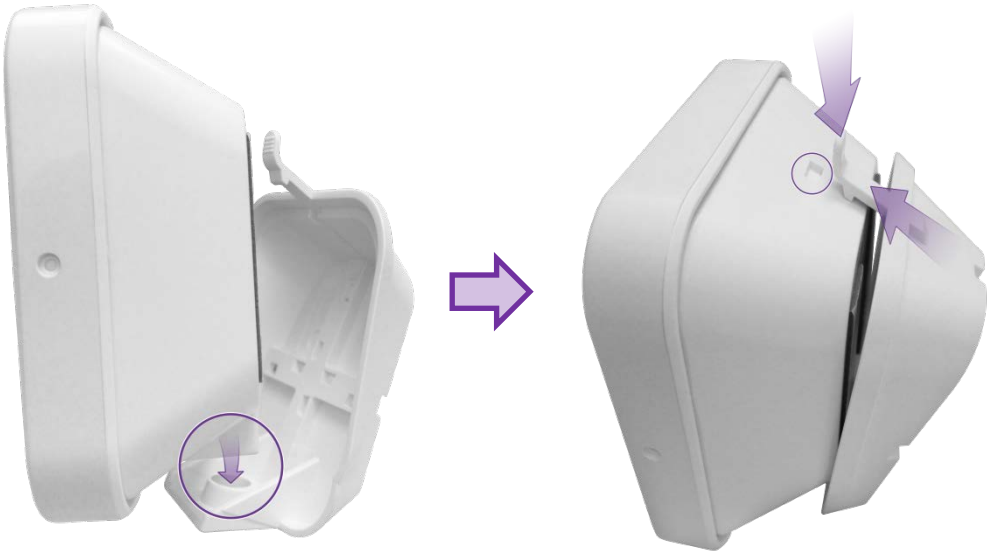

Figure 6: Attach the Table Mount

10. To install the VPD on a wall:
    a. Clean the surface of the mounting location thoroughly.
    b. Peel the protective strips off the mounting tape.

Figure 7: Peel the Protective Strips

    c. Press the VPD into place.

d. Insert the pull cord into the opening.

Figure 8: Insert the Pull Cord

NOTE: For information about installing the VPD using screws, refer to Installing with Screws on page 22.

3. Testing the VPD Installation

Verify that the VPD has been installed correctly. Test the various ways of calling for assistance.

1. Do one of the following:
   - Press the **Emergency** button on the VPD.
   - If you installed the VPD on a wall, pull out the cord.
   - Call out the emergency trigger phrase.
2. Verify that the **Emergency** button on the **VPD** lights up red.
3. Verify that the **Emergency** button on the **CP** flashes red and a vocal announcement declares that the emergency alarm has been triggered.
4. Verify that the monitoring station receives an emergency message from the CP.
5. If you have not already tested all the ways of calling for help, go back to step 1, and test another call for help.

4. Operating the VPD

The VPD is an additional emergency peripheral that is either installed on a table top such as a counter or desk, or installed on a wall such as in a shower stall, above a bath, or above a bed.

For example, you can install the CP in the living room and install two VPDs, one in the bedroom on the night table and the other on the wall in the bathroom shower stall. The resident can call for assistance from multiple locations on the premises.

Ways to Get Help

Call out the trigger phrase

OR

Press the **Emergency** button

OR

Pull out the cord

When pulled, the cord separates from the VPD.

Any of these actions trigger the following:

- The **Emergency** button lights up red indicating that an alert event has been triggered.
- The VPD sends an emergency alert to the CP. The ring around the CP **Emergency** button flashes red followed by a vocal announcement that an emergency alarm has been triggered.
- The CP forwards the emergency message to the monitoring station.
- (Optional) The CP can initiate an emergency call to the monitoring station. If an emergency call is made, the monitoring station can use the VPD to communicate with the resident.

NOTE: After the emergency event is resolved, make sure to re-insert the pull cord.

4.1. Sending Notifications

The VPD sends notifications to the CP for the following events:

- An emergency alert is triggered.
- The battery charge for the VPD is low, requiring replacement.
- The tamper switch of the VPD is disturbed, registering a tamper event.

You can define how the VPD issues notifications to the CP.

4.2. LED Indications

The VPD LED lights up as shown in the following table.

Table 1: LED Indications

LED	Situation
Lights **red** for 2 seconds	■ The **Emergency** button is pressed ■ The triggered phase is recognized ■ The cord is pulled out ■ On power-up
Blinks **green** – 100 ms - twice	■ Emergency call first connects to the monitoring station or caregiver
Blinks **orange** – 100 ms - twice	■ Monitoring station operator or caregiver switches a call from talk to listen
Blinks **red** – 1 second on, 1 second off – five times	Voice detection is disabled
Blinks **red** – 1 second on, 1 second off – twice	Voice detection is enabled

4.3. VPD Supervision

The VPD is a supervised peripheral. The VPD periodically transmits its status to the CP. The frequency of the reporting periods can be configured locally or remotely.

If after a pre-defined time the CP does not receive the status message, the CP sends a **Supervision lost** report to the monitoring station.

4.4. Disabling Voice Detection

If the VPD issues false alarms, you can disable voice detection.

To disable voice detection for a wall-mounted VPD:

1. Pull out the cord. There is now a 60 second window within which to start pressing the **Emergency** button.
2. Press the **Emergency** button for at least 30 seconds.
3. Re-insert the pull cord.

The LED indicator blinks red five times to indicate that voice detection is disabled.

To enable voice detection, perform the same procedure. The LED indicator blinks red twice to indicate that voice detection is enabled.

You can also disable or enable VPD voice detection.

4.5. Voice Extender Capability in Action

The monitoring station can use the VPD to communicate with the resident. For example, if the resident makes an emergency call from a VPD or CP, the monitoring station operator can communicate with the resident using the CP or VPD.

NOTE: Depending on how Care@Home™ is configured, an emergency call triggered by the resident may go to a monitoring station or a caregiver. If emergency calls are configured to go to a caregiver, the caregiver can use the voice extender capability in the same way as a monitoring station operator. For example, to communicate with the resident using the CP or VPD.

The emergency call is half-duplex. The monitoring station operator or caregiver can use a DTMF number – by pressing the number on the phone keypad – to:

- Switch from listen to talk (default DTMF is **1**)
- Switch from talk to listen (default DTMF is **3**)

If unable to contact the resident, or there is a loss of contact, with the voice extender capability, the monitoring station operator or caregiver can:

- Use a DTMF number (the default is 6) to transfer the call to the next device in the loop of the VPD and CP devices in the system.
- Use a different DTMF number (the default is 5) to transfer the call directly to the CP

For example, assume the resident has VPD1, VPD2, VPD3 and CP installed, and the default DTMF configuration is in place.

If the resident makes an emergency call from VPD1, and then moves away from VPD1, the monitoring station operator or caregiver can use the DTMF number 6 to switch the call to VPD2. Using the DTMF number 6 again, switches the call to VPD3, and so on each time DTMF number 6 is used.

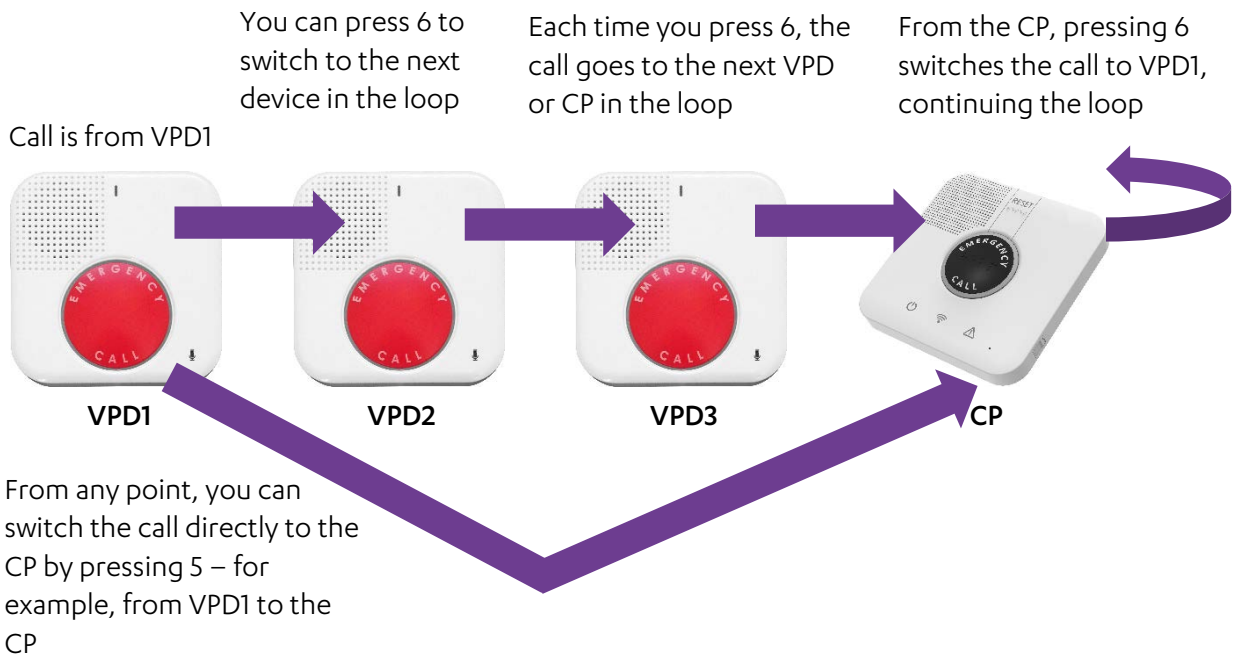

Figure 9: Voice Extender in Action

You can configure the DTMF parameters to define how the VPD voice extender works.

NOTE: If using a DTMF number does not work properly, the VPD or CP gives a short failure beep.

4.6. Voice Announcements

The VPD makes an announcement when, using the voice extender capability, an emergency call is switched to that VPD. The format of the announcement is:

<location of VPD>

For example: "Bathroom"

NOTE: The announcement is also made by a CP if an emergency call is switched to the CP.

5. Replacing the Batteries

The battery status is reported automatically to the monitoring station via the CP. When the status indicates that the battery charge is low, the battery must be replaced.

NOTE: If you have used the option of securing the top and bottom of the VPD with screws on the left and right sides, you must first take these screws out before replacing the batteries.

To replace the battery:

1. If your VPD has a table mount:
   a. Remove the table mount.
   b. Release the back cover of the VPD. See step 2 on page 5.
2. If your VPD is mounted on a wall:
   a. Pull the cord out of the VPD.
   b. Hold the device on both sides and pull the device straight off the wall mount.

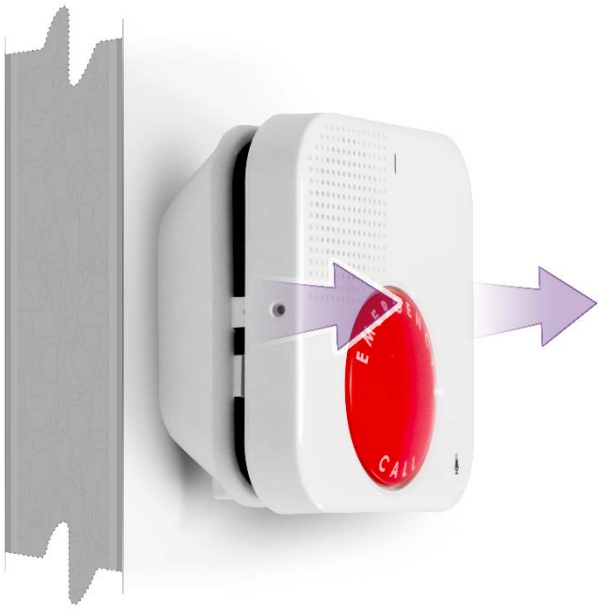

Figure 10: Remove the VPD from the Wall Mount

3. Remove the old batteries.
4. Insert the new batteries, observing the correct polarity.

> WARNING! A new battery can cause damage if it is incorrectly installed.

The **Emergency** button lights up red, indicating that the VPD has powered up successfully.

5. Close the VPD by aligning the tamper pin with the tamper switch.

Figure 11: Align Tamper When Closing the VPD

6. If you used screws to secure the top and bottom of the VPD, screw them back in.
7. Return the VPD to the table or wall mount.
8. If your VPD is mounted on a wall, re-insert the pull cord.

6. Specifications

Below are tables defining the technical specifications for the VPD.

Table 2: VPD Technical Specifications

Category	Data
Part Number	■ VPD: ES700VPD ■ SPD: ES700SPD
Communications	■ Maximum RF range: up to 700 m (2,296 ft.) – open air ■ Proprietary bi-directional radio protocol ■ OOK modulation: 433.92 MHz ■ Data security: 32-bit ID, over 4 billion combinations
Special Features	■ Emergency phrase detection by Intelligent Voice Activation™ technology ■ Voice extender for two-way communication with the monitoring station ■ Accessories: pull cord and table mount ■ Safety: tamper mechanism ■ Multiple-color LED for emergency and system status indications
Power	■ 2 C 1.5V alkaline batteries – not included ■ Battery life: up to two years ■ Approved manufacturers: GP, Energizer, Duracell NOTE: To comply with the UL certification standards, use GP International Limited batteries
Physical	■ Size (H x W x D) 95 x 95 x 42 mm (3.74 x 3.74 x 1.65 in.) ■ Weight: 300 g (0.66 lb.) not including batteries ■ Color: glossy white with a red button/grey button/yellow glow in the dark button
Environmental	■ Operating ambient temperature range: 0°C to 45°C (32°F to 113°F) ■ Storage temperature range: -10°C to 60°C (14°F to 140°F) ■ Operating humidity: up to 100% humidity ■ Water resistance: Water and dust resistant – IP54 compliant

Category	Data
Compliance	■ FCC ID: 2ARFP-ES700VPDMH ■ IC: 24417-ES700VPDMH ■ UL ■ CE ■ EN50134 ■ AS4607 ■ SRRC ■ EN50130-5 Environmental Class I

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 to which the receiver is connected

Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Essence Ltd.) could void the user's authority to operate the equipment

WARNING! **To comply with FCC and IC RF exposure compliance requirements, the device should be located at a distance of at least 20 cm from all persons during normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.**

This device complies with FCC Rules Part 15 and with Industry Canada license-exempt RSS standard(s). 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

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.

Appendix A Stationary Panic Detector (SPD)

The Stationary Panic Detector (SPD) is a version of the VPD which does not include voice detection.

Otherwise, the SPD has similar functionality to the VPD, and has the same replaceable batteries, appearance, and physical characteristics as the VPD.

You add an SPD to Care@Home™ the same way you add a VPD to Care@Home™.

Appendix B Installing with Screws

You can install the VPD on a wall with screws. The back cover of the VPD serves as the mounting-base.

Installing with screws:

- Allows more flexibility in choosing installation locations
- Can reinforce the tape installation especially in a wet or moist location

Prepare the following equipment:

- A drill with a standard, appropriate bit
- Two 3 X 35 DIN 7982 C screws and wall anchors – not provided
- A standard Philips screwdriver

The mounting-base has two holes. One is the tamper pin, triggering a tamper event if the VPD is disturbed.

The rubber seal covering the holes is for waterproofing the VPD. The seal allows you to screw through the holes and retain the waterproofing capability.

To install the VPD using screws:

1. Remove the back cover of the VPD, as instructed in step 2 on page 5.
2. Mark the position of the screws on the wall by screwing the screws slightly through the wall mount and tapping them until a mark appears on the wall.

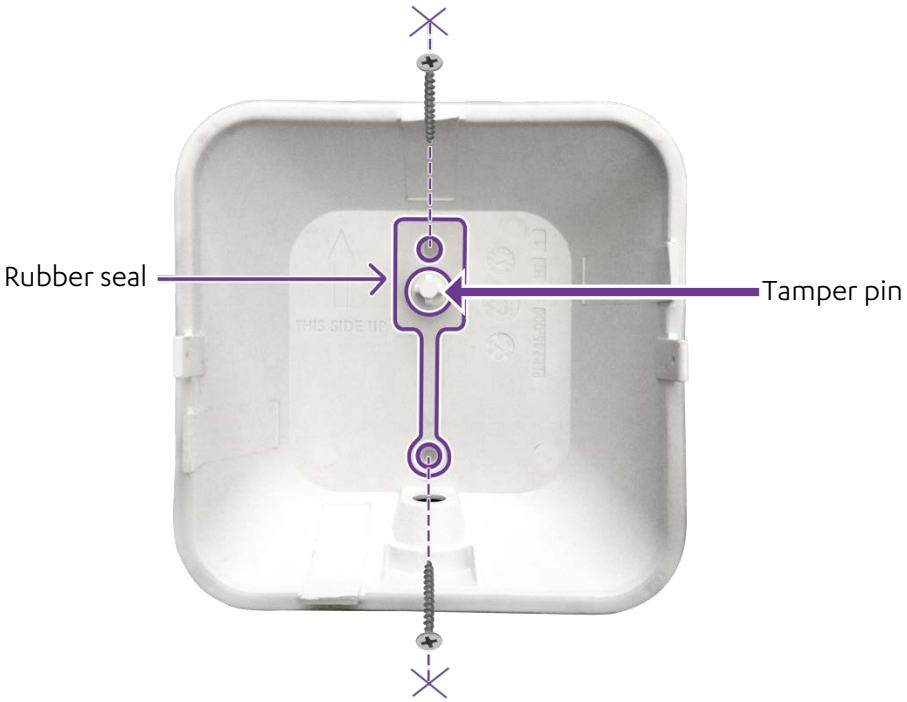

Figure 12: Rubber-sealed Screw Holes in the VPD Mounting-Base

3. Drill holes where marked and insert the wall anchors.
4. Align the wall mount with the inserted wall anchors and screw the two screws through the rubber seal in the wall mount into the wall.

Appendix C Recommended Mode of Operation

The VPD is designed to be used in a home environment or in a residential unit in an assisted living facility.

Ideally, the VPD should be installed in a room smaller than 5 x 6 m (16.4 x 19.7 ft.) with average background noise.

The best environment for phrase recognition is silence to partial silence, with up to four people present.

For best results, it is recommended to operate the VPD with the back cover properly closed.

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