

# Vivint Keypad

(VS-KPAD01-001)

## Quick Reference (User Manual – Install & Operation)



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The Vivint Keypad is a wireless Z-Wave™ control device that provides remote access to the security features for a Vivint Smart Home™ system, including enabling and disabling both the Arm Away and Arm Stay security modes. The keypad can also be used to transmit a signal to Vivint Monitoring for fire, panic, and general emergency conditions such as a home intrusion.

The keypad has an easy-to-use interface with identified and illuminated buttons, as well as indicator icons that show when the device is offline, or battery power is low. It also displays security system status with a downcast light.

This document includes a product description, installation instructions, basic operation, illustrations, technical specifications, and regulatory references.

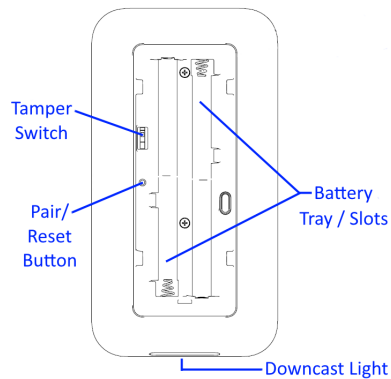


### Installation Instructions

You can install (mount) the keypad with either screws or tape:

- To mount with the provided screws:**
  - Slide the battery cover / mounting plate down and remove it.
  - Place the mounting plate in the desired location.
  - Secure the mounting plate with the 2 screws, using the slotted hole to adjust the plate up or down to ensure a precise level.
  - Reattach the keypad by placing it directly on the mounting plate, and sliding it down until it locks into place.
- To mount with tape:**
  - Remove the tape's backing paper from back of the mounting plate (do not remove the plate itself).
  - Place the keypad in the desired location, being careful to ensure a precise level.
  - Press the keypad against the wall for 30 seconds to activate the tape and secure it to the wall.
- Once installed, enable the batteries by removing the pull tab.

Keypad (back view, open; battery cover / mounting plate off) —

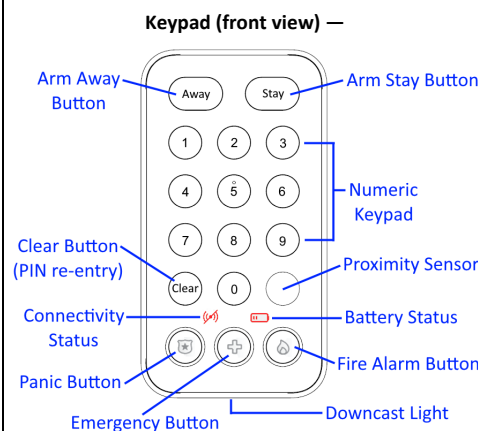


### Adding the Keypad to the System – Network Inclusion

Add the keypad device to the Vivint system using one of the following methods:

This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. A S2 security enabled controller is required to operate the product.

- Vivint app (SmartStart):** Scan the SmartStart QR code on the box with your smartphone, and then follow the prompts in the app. (Note: The QR code can also be found inside the battery cover under the batteries.) SmartStart enabled products can be added into a Z-Wave network by scanning the Z-Wave QR Code present on the product with a controller providing SmartStart inclusion. No further action is required and the SmartStart product will be added automatically within 10 minutes of being switched on in the network vicinity.
- Vivint panel/hub via Z-Wave (Classic Inclusion):** Use this standard method for adding Z-Wave devices at the panel or hub. Use the "PAIR/RESET" button next to the battery tray. Follow the onscreen prompts to add the keypad.



### Basic Operation / User Functionality

Once the keypad is up and running, the user can perform the following functions. For more details, refer to online Help at the Vivint Support site: [support.vivint.com](http://support.vivint.com).

#### MAIN FEATURES —

- Arm to **STAY** mode (press & hold the button for 3 seconds)
- Arm to **AWAY** mode (press & hold the button for 3 seconds)
- Disarm the system (enter a valid user's 4-digit PIN code)
- Send an emergency signal to Vivint Monitoring (press the PANIC, FIRE, or EMERGENCY button for 2 seconds)
- Verify system status (wake the keypad by touching it, and view the downcast light) as indicated by these colors:

**Green:** System disarmed

**Orange:** System armed

**Red:** Alarm in progress

## Testing

Before installing the keypad, verify that the mounting location provides reliable RF communication to the panel. To verify:

1. Press and hold the STAY button until the countdown is complete.
2. Confirm that the security hub has transitioned into Armed Stay mode.
3. Enter your PIN from the keypad, and confirm on the hub that the system has successfully been disarmed.

**NOTE:** It is recommended that a system test be performed at least once a year to ensure proper functionality.

## Battery Installation and Replacement

Use only the recommended batteries (see *Specifications*). To install or replace the batteries:

1. Remove the keypad from the mounting plate (see *Installation Instructions*).
2. Lift the old batteries out by hand.
3. Insert the replacement batteries with the "+" sign facing out.
4. Verify keypad operation, configuration, and RF communication with the panel.

**WARNING! The polarity of the battery must be observed, as shown (see Figure 2). Improper handling of lithium batteries may result in heat generation, explosion or fire, which may lead to personal injuries. Replace only with the same or equivalent type of battery as recommended by the manufacturer.**

**Batteries must not be recharged, disassembled or disposed of in fire.** Disposal of used batteries must be made in accordance with the waste recovery and recycling regulations in your area. Keep away from children. If swallowed, promptly see a doctor.

**California Only:** This Perchlorate warning applies only to Manganese Dioxide Lithium cells sold or distributed ONLY in California, USA. Perchlorate Material-special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).

## Specifications

Wireless Signal Range	Up to 100m
Code Outputs	Key press 0-9; *, #; STAY; AWAY; FIRE; PANIC; EMERGENCY; Supervisory; Low Battery
Transmitter Frequency	9089.42 MHz / 916 MHz (crystal controlled)
Transmitter Frequency Tolerance	< 25 KHz
Transmitter Bandwidth	< 100 KHz
Modulation Type	FSK / GFSK
Unique ID Codes	Over one (1) million different code combinations
Peak Field Strength	Typical 93 uV/m at 3m
Dimensions (WxHxD)	5.91 x 3.15 x 1.05 in. (15.0 x 8.0 x 2.6 cm)
Weight (incl battery & bracket)	7.69 oz. (218 g)
Housing Material	ABS plastic
Color	Gray and white
Operating Temperature	32° to 120° F (0° to 49° C)
Relative Humidity	5-95% Non-Condensing
Battery (installed)	Four (4) AA alkaline batteries, or equivalent Lithium batteries
Regulatory Listing(s)	UL, FCC Part 15, Industry Canada
Warranty*	30 months from date of manufacture
Included Accessories	Two (2) Phillip's head screws; two (2) plastic wall anchors; double-sided tape

## FCC Regulatory Compliance Statement\*

**CAUTION:** Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules and 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 of the device.

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 the 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/television technician for help.

FCC ID: 2AAA5-KP01, IC: 10941A-KP01

\*For complete regulatory compliance information, go to: [vivint.com/fcc](http://vivint.com/fcc)

## Removing Keypad from System

### Vivint Panel:

- To remove the device, place the panel Use this standard method for excluding Z-Wave devices at the panel or hub. Use the "PAIR/RESET" button next to the battery tray. Follow the onscreen prompts to add the keypad.

## Factory Default

Please use this procedure only when the network primary controller is missing or otherwise inoperable.

To restore the keypad to factory settings which removes it from any network as well:

- Locate the button labeled Pair/Reset underneath the back battery cover.
- Insert a paperclip into the hole until you feel the button depress.
- Hold the button down for ten seconds. The green downcast indicator will blink rapidly while the reset button is pressed and go out after ten seconds.
- The device's downcast indicator will turn red when the reset operation is complete. The device is now ready to be added back to a Z-Wave network.

## Z-Wave Device Class and Command Class

This Z-Wave keypad is a Z-Wave generic Device Class of GENERIC\_TYPE\_ENTRY\_CONTROL (0x40), and a specific device class of SPECIFIC\_TYPE\_SECURE\_KEYPAD (0x0B).

## Manufacturer Specific

- Manufacturer ID: 0x0156
- Product Type: 0x4B50
- Product ID: 0x0001

## Association

The keypad supports one Association group which is the "Lifeline" group of able to have one node in the group. All unsolicited Z-Wave messages are transmitted to the node in the Lifeline group such as Entry Control, Notification, Battery, and Device Reset Locally notifications.

## Command Classes

Command Class	Version	Secured via S2
Z-Wave Plus Info	2	
Association	2	√
Association Group Info	3	√
Battery	1	√
Configuration	4	√
Device Reset Locally	1	√
Firmware Update Metadata	5	√
Indicator	3	√
Manufacturer Specific	2	√
Multichannel Association	3	√
Notification	8	√
Power Level	1	√
Security 2	1	
Security 0	1	
Supervision	1	√
Transport Service	2	
Version	3	√
Entry Control	1	√

## Configuration

The keypad supports five configuration parameters listed below.

### 1. Motion Detector

Description	Whether or not motion detector is enabled. 1: Enabled (default) / 0: Disabled.
Size	1
Format	Enumerated
Read only	No
Min Value	0
Max Value	1
Default Value	1

### 2. Sound

Description	Enable beeper feedback. 1: Enabled (default) / 0: Disabled.
Size	1
Format	Enumerated
Read only	No
Min Value	0
Max Value	1
Default Value	1

### 3. Down-Cast Light

Description	Enable the down-cast light. 1: Enabled (default) / 0: Disabled.
Size	1
Format	Enumerated
Read only	No
Min Value	0
Max Value	1
Default Value	1

### 4. Application-Level Retries

Description	Number of attempts on top of the stack-level retries to try to reach the controller/hub with Z-Wave messages.
Size	1
Format	Unsigned Integer
Read only	No
Min Value	0
Max Value	10
Default Value	3

### 5. Battery-Poll Timer

Description	Amount of time in minutes between timed battery checks.
Size	2
Format	Unsigned Integer
Read only	No
Min Value	5
Max Value	1440
Default Value	70

## Indicator

Indicator ID	Name	Combinable with Buzzer Indicator	Supported Properties					
			Binary	Level	Time Out Seconds	On-Off Period	One Time On-Off Period	On-Off Cycles
			0x02	0x01	0x07	0x03	0x05	0x04
1	Armed	*	*					
2	Disarmed	*	*					
4	Fault		*					
9	Code Not Accepted	*	*			*	*	*
0x0A	Armed Stay	*	*					
0x0B	Armed Away	*	*					
0x0C	Alarming		*					
0x0D	Alarming Burglar		*					
0x0E	Alarming Smoke		*					
0x10	Bypass Challenge		*			*	*	*
0x11	Entry Delay		*		*			
0x12	Exit Delay			Target State 1: Away 2: Stay	*			
0x13	Alarming Medical		*					
0x14	Alarming Freeze		*					
0x15	Alarming Water Leak		*					
0x16	Alarming Panic		*					
0x50	Identify	*	*			*	*	*
0xF0	Buzzer			Frequency 1: Low 2: High		*	*	*

The indicators supporting properties On-Off Period, One Time On-Off Period, and On-Off Cycles can safely interrupt the other indicators, and the other indicators if active will resume.

The Armed Indicator is ignored if it has not previously received an Armed Away or Armed Stay Indicator.

The Identify indicator flashes the device's backlight keys.

## Entry Control

The Keypad uses the Entry Control command class to communicate the button presses of keypad. The Away, Stay, and Panic buttons on the bottom require a hold of the key to transmit an event.

The following entry control events are supported.

Event ID	Name	Requires Hold
0x00	Caching Keys	No
0x01	Cached Keys	No
0x05	Arm Away	2
0x06	Arm Home	seconds
0x10	Fire	3
0x11	Police	seconds
0x13	Alert Medical	seconds
0x19	Cancel	No

The Number keys are ASCII keys 0 through 9 communicated as parameters on the last Entry Control event.

## Notification

The following Notifications are supported sent to the Lifeline Association Group.

Type	Event
<i>Home Security (0x07)</i>	Tampering Covering Removed (0x09)
	Motion Detected Unknown Location (0x08)
<i>Power Management (0x08)</i>	Replace Battery Soon (0x0A)
	Replace Battery Now (0x0B)

## Supervision

When included with S2, all unsolicited Z-Wave messages from the Keypad to the controller are encapsulated in a Supervision Get command to ensure proper decoding, so the Keypad must see both an ACK and a corresponding Supervision Report to consider the message communicated successfully.

## Z-Wave Certification

This product is Z-Wave certified. The Z-Wave Certification # is ZCXX-XXXXXXX. For more information, please visit [www.z-wave.com](http://www.z-wave.com)

This product is covered by one or more claims of patents found at: <http://sipcollc.com/patent-list>

