REGULATORY COMPLIANCE GUIDE — 2017

Vivint Smart Home System

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Introduction

About this Guide

This document provides critical information about regulatory compliance, industry standards certifications, and fire protection and safety guidelines related to the Vivint system. The information pertains to all of the supported Vivint Smart Home™ security and automation products (specifically identified when necessary), including the touchscreen control panels, displays, sensors, detectors, alarms, and other connected peripheral devices.

It is intended as a reference for the Vivint Smart Home Pro™ technician (i.e., Vivint Installer), testers, and regulatory agencies.

The *Regulatory Compliance Guide* is comprised of information found in the complete *Installation Guide*, and represents a standalone version of the "Regulatory Information" section of that guide. Refer to that guide for additional information regarding technical specifications, component interactions, and detailed instructions specific to control panel setup and system settings configuration.

The following topics are covered in this document:

- "FCC and IC Regulatory Compliance Declarations" on the next page
- "Wireless Product Notice" on page 4
- "Environmental (Operating Temperature and Humidity Range) Notice" on page 4
- "Power Supply Notice" on page 4
- "Internal Backup Battery Notice" on page 4
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- "Important Fire Protection and Safety Guidelines" on page 10
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- "Additional Panel-Specific Information" on page 15

FCC and IC Regulatory Compliance Declarations

The complete FCC and Industry Canada (IC) Regulatory Compliance Declarations are posted online at the Vivint Support website. The full text of these notices is also provided below, as a convenient reference for anyone who installs, configures, or uses the system.

NOTE: For FCC and IC ID numbers for the various supported system devices, including the control panels, see "Model Numbers and FCC and IC Certification ID Numbers for System Devices" on page 8.

FCC Notice



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 (IC) 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.

This product complies with FCC radiation exposure limits for an uncontrolled environment. Avoid operating this product at a distance less than 7.9 in (20 cm) from the user.

IC Notice (Avis D'Industrie Canada)



PRUDENCE: Changements ou modifications pourraient annuler le droit de l'utilisateur à utiliser l'équipement non autorisées.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

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.

Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre une énergie de radiofréquence et, s'il n'est pas installé et utilisé conformément aux instructions, il peut causer des interférences nuisibles aux communications radio. Cependant, il n'existe aucune garantie que des interférences no se produiront pas dans une installation particulière. Si cet équipement provoque des interférences nuisibles à la réception radio ou télévision, ce qui peut être déterminé en mettant l'équipement hors et sous tension, l'utilisateur est encouragé à essayer de corriger l'interférence par une ou plusieurs des mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.
- Augmentez la distance entre l'équipement et le récepteur.
- Connecter l'équipement à une sortie sur un circuit différent de celui sur lequel le récepteur est branché.
- Consulter le revendeur ou un technicien radio / télévision expérimenté pour de l'aide.

Ce produit est conforme aux limites FCC d'exposition aux radiations pour un environnement non contrôlé. Évitez d'utiliser ce produit à une distance inférieure à 7,9 in (20 cm) de l'utilisateur.

Wireless Product Notice

Wireless communications hardware provides reliable communication; however, there are some limitations which must be observed.

- The transmitters are required to comply with all applicable wireless rules and regulations. As such, they have limited transmitter power and limited range.
- Wireless signals may be blocked by radio signals that occur on or near the wireless operating frequencies.

Environmental (Operating Temperature and Humidity Range) Notice

For optimal performance, the control panel should be operated under the following conditions:

- The panel will operate normally at temperatures between 0°C to 49°C (32°F to 120°F). For optimal battery operation, the recommended temperature range is 0°C to 35°C (32°F to 95°F).
- The panel will operate normally at humidity levels of 0 – 90% non-condensing.

Power Supply Notice

The control panel is powered by a plug-in power supply. Use only the Class 2 power supply provided with the control panel.

IMPORTANT: In case the power supply becomes unplugged, be sure to plug it back into an unswitched outlet. Do NOT connect the power supply to a receptacle controlled by a switch.

For power supply replacement information and instructions, contact Vivint Customer Care.

Internal Backup Battery Notice

The Vivint Smart Hub control panel contains a user-serviceable battery providing a minimum of 24 hours of internal backup battery power when operating normally in low power mode.

The Vivint SkyControl control panel contains a non-user-serviceable battery providing a minimum 4 hours of internal backup battery power when operating normally in low power mode.

For battery replacement information and instructions, contact Vivint Customer Care.

Applicable Warnings for Technicians

This section provides a summary of applicable WARNING notes intended for the Vivint technician who handles Vivint products such as the control panel and peripheral devices. These notes are included in the official *Installation Guide* in their appropriate section; and are consolidated here as a convenient reference.

WARNINGS

WARNING: Electrostatic discharge (ESD) can damage the exposed circuit board, components, and modules in the control panel. These devices are ESD sensitive, therefore you need to make sure to discharge any static buildup before removing the back mounting plate from the control panel, and whenever handling components and modules.

WARNING: Where applicable, do not connect or disconnect the cellular module, network module, or hard drive while the control panel is powered by either the external power supply or the internal backup battery.

General Regulatory and Compliance Notes

The Vivint control panel is designed to meet or exceed all regulatory requirements for ***Listed*** residential home security equipment.

Additionally, the Vivint panel-based system complies with the **American National Standards Institute / Security Industry Association Control Panel Standard ANSI/SIA CP-01-2014**.

The notes below — consolidated here as a convenient single reference from their respective pertinent sections in the official *Installation Guide* — describe unique technological and/or functional aspects of the Vivint system related to that particular feature, and are applicable to specific regulatory standards as cited.

NOTES

NOTE: Some cities and municipalities may require an alarm system permit. The Vivint technician who installs the system is responsible to know these requirements OR to check with the local authorities before installing the system.

NOTE: Many insurance companies offer discounts on homeowners and renters policies when a security system is installed. Discounts vary with different companies and generally increase in savings with an increase in the level of protection. Inform the user to ask their insurance agent about savings available.

NOTE: This security system is also ***Listed*** for use as a household fire warning system, there must be at least one smoke detector configured into the control panel. Many insurance companies require meeting these requirements to qualify for a discount. Use only approved smoke detectors with this control panel.

NOTE: Fire warning systems (including smoke and/or CO alarms) installed in the United States must be installed in accordance with ***Chapter 29 of the National Fire Alarm and Signaling Code ANSI/NFPA 72 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269)***, and the ***National Electrical Code ANSI/NFPA 70***.

NOTE: Test fire warning systems at least once per week.

NOTE: Connection of protective wiring, conductors, and attachments are to be made in accordance with ***UL 681 (Standard for Safety of Installation and Classification of Burglar and Holdup Alarm Systems)***, and ***UL 827 (Standard for Central Station Alarm Services)***.

NOTE: Home automation features and functionality are not covered or evaluated under the requirements of the following UL Standards: ***UL 985 (Standard for Household Fire Warning System Units)***, ***UL 1023 (Standard for Household Burglar Alarm System Units)***, and ***UL 1610 (Standard for Central-Station Burglar-Alarm Units)***.

IMPORTANT: Failure to install the control panel and all connected sensors and devices in accordance with the requirements contained in the official *Installation Guide* voids the ***Listed*** mark.

IMPORTANT: For ***UL 1023 (Standard for Household Burglar Alarm System Units)*** compliance, the control panel cannot be configured to place a direct call to a police station.

IMPORTANT: If installed in a commercial location, inform the end user that: The panel is intended for burglary protection only, not for fire protection (commercial protection is limited to mercantile locations and not banks), in accordance with ***UL 1610 (Standard for Central-Station Burglar-Alarm Units)***. In addition, this system is classified as encrypted line security equipment (by virtue of the construction and performance requirements for components of the system) and does not provide standard line security.

Model Numbers and FCC and IC Certification ID Numbers for System Devices

A customized Vivint system will include several unique and proprietary Vivint Smart Home products — along with other third-party products — including the primary control panel and its connected sensors, detectors, secondary displays, and a variety of smart home automation devices such as cameras and thermostats. This section provides important FCC and Industry Canada (IC) identification information about the Vivint-specific equipment, in addition to their corresponding model numbers.

Table of Devices with Model and Certification ID Numbers

The table below lists Vivint-branded system devices with their respective Vivint and regulatory compliance model numbers, and their FCC and IC certification ID numbers.

Device Name	Vivint Model #	Regulatory M/N	FCC ID #	IC ID #
SkyControl Panel MP1	V-MP1-345	CP01	2AAAS-CP01	10941A-CP01
SkyControl Panel MP2	V-MP2-345	CP01	2AAAS-CP01	10941A-CP01
Smart Hub V1 Panel	V-SH1	CP02	2AAAS-CP02	10941A-CP02
Glance Secondary Display	V-SHD1	CP03	2AAAS-CP03	10941A-CP03
Smart Hub V2 Panel	VS-SH2000-000	CP04	2AAAS-CP04	10941A-CP04
Door / Window Sensor	V-DW11-345	DW02	2AAAS-DW02	10941A-DW02
Recessed Door Sensor	V-DW21R-345	DW01	2AAAS-DW01	10941A-DW01
Motion Sensor	V-PIR2-345	MD01	2AAAS-MD01	10941A-MD01
Glass Break Sensor	V-GB2-345	GB01	2AAAS-GB01	10941A-GB01
Secure Key Fob Remote	V-SKEY1-345	KF01	2AAAS-KF01	10941A-KF01
Panic Pendant	V-PANIC2-345	PB01	2AAAS-PB01	10941A-PB01
Doorbell Camera	V-DBC2	N/A	PANWM8192EU*	10384A-WM8192EU*
Ping Indoor Camera	V-CAM1	CM01	2AAAS-CM01	10941A-CM01
Element Thermostat	V-SCT200	CT200	QO8-CT200R1	4714A-CT200R1

Device Name	Vivint Model #	Regulatory M/N	FCC ID #	IC ID #
Repeater	V-RPTR1-345	RP01	2AAAS-RP01	10941A-RP01
Wireless Router	WRDB1200AC-V	WR01	2AAAS-WR01	10941A-WR01

NOTES: * ID # for a certified wireless module.

Important Fire Protection and Safety Guidelines

This section provides information about the fire, smoke, and CO protection functionality available with a Vivint home security and automation system (depending on the installed sensors and detectors).

National Fire Protection Association (NFPA) guidelines for smoke detector installation are included.

Additionally, a basic emergency evacuation plan is offered as an example of general instructions.

Fire Alarm System

The Vivint system may be installed with smoke detectors and carbon monoxide (CO) detectors as part of an overall fire and gas protection system. The fire protection part of the security system is active 24 hours a day, offering continuous protection.

In the event of a fire or poisonous CO gas emergency, the installed smoke or CO detector will automatically activate your security system. A loud, intermittent horn will sound from the panel, and the external sounder will produce an intermittent siren (if an external sounder has been installed). The fire sounder will continue until the fire horn timer expires or until a valid User PIN code is entered.

Manual Fire Alarm

If you become aware of a fire emergency *before* your detectors sense the problem, follow these steps:

1. Yell FIRE! to alert anyone else around.
2. Go to your control panel and press the **Emergency** button, then press and hold the **Fire** button for at least two seconds. THE FIRE ALARM WILL SOUND.
3. Evacuate all occupants from your home, and then call your local fire department from a safe location.

Automatic Fire Alarm

If your detectors trigger a fire emergency alarm *before* you sense a problem AND the fire alarm is already sounding, follow these steps:

1. If flames and/or smoke are present, yell FIRE! to alert anyone else around.
2. Evacuate all occupants from your home, and then call your local fire department from a safe location.

OR

1. If no flames or smoke are apparent, investigate the possible causes of the alarm.
2. Go to your control panel and enter your User PIN code to stop the fire alarm sounder.

3. Review the alarm memory to determine which sensor(s) caused the alarm.
4. Go to the sensor(s) and look for the reason the sensor tripped.
5. Correct the condition that caused the detector to sense smoke or CO gas.

Silencing a False Fire Alarm

If the fire alarm is sounding due to a detector sensing burnt food or some other non-emergency condition, follow these steps to stop the alarm:

1. Silence the fire alarm sounder by entering your User PIN code.
2. Review the alarm memory to determine which sensor(s) caused the alarm.
3. If the alarm restarts, there may still be smoke in the detector's sensor. Enter your User PIN code again to stop the alarm. Fan the detector for 30 seconds to clear the detector's sensor chamber.
4. After the problem has been corrected, clear the alarm history. (Fire & CO sensors that are still violated cannot be cleared from alarm history until the device returns to normal operation. Carefully inspect the premises for danger if fire or CO sensors remain in alarm.)

Installing Smoke Detectors

Follow the guidelines below when installing smoke alarms / detectors. Keep in mind these specific guidelines are from the *National Fire Protection Association* website: **nfpa.org**.

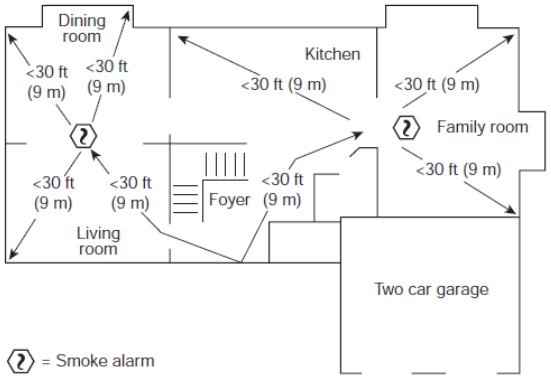
- Choose smoke alarms that have the label of a recognized testing laboratory.
- Install smoke alarms inside each bedroom, outside each sleeping area and on every level of the home, including the basement.
- On levels without bedrooms, install alarms in the living room (or den or family room) or near the stairway to the upper level, or in both locations.
- Smoke alarms installed in the basement should be installed on the ceiling at the bottom of the stairs leading to the next level.
- Smoke alarms should be installed at least 10 feet (3 meters) from a cooking appliance to minimize false alarms when cooking.
- Mount smoke alarms high on walls or ceilings (remember, smoke rises). Wall-mounted alarms should be installed at least 12 inches from the ceiling (from the top of the alarm to the ceiling).
- If you have ceilings that are pitched, install the alarm within 3 feet of the peak but not within the apex of the peak (four inches down from the peak)
- Don't install smoke alarms near windows, doors, or ducts where drafts might interfere with their operation.
- Never paint smoke alarms. Paint, stickers, or other decorations could keep the alarms from working.
- Keep manufacturer's instructions for reference.

Recommended Smoke Detector Locations

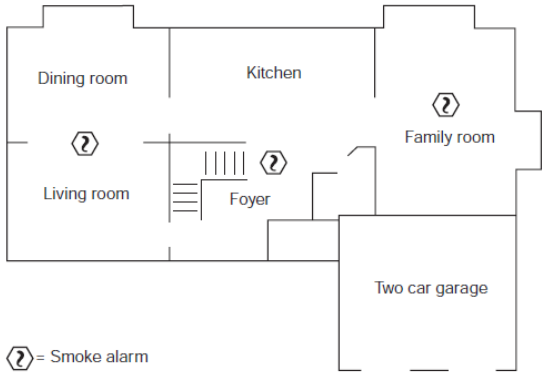
The National Fire Protection Association's (NFPA) Standard 72 recommends the following placement for smoke detectors:

Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household. The equipment should be installed as follows:

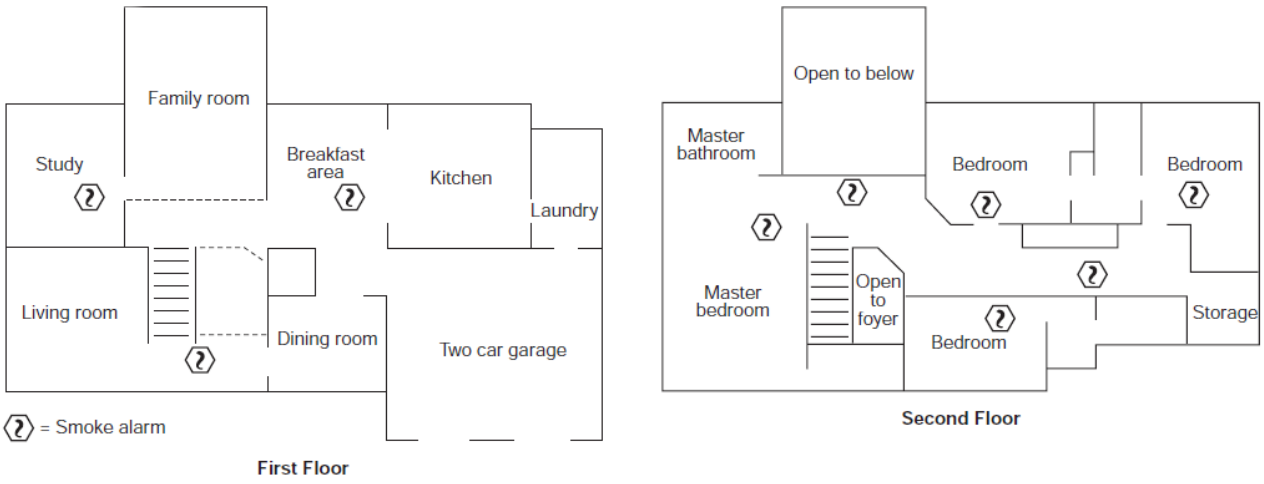
- A smoke detector installed outside each separate sleeping area, in the immediate vicinity of the bedrooms and on each additional story of the family living unit, including basements and excluding crawl spaces and unfinished attics.
- In addition, the NFPA recommends that you install smoke detectors in the living room, dining room, bedroom(s), kitchen, hallway(s), finished attics, furnace room, utility and storage rooms, and attached garages. See the images below for examples of smoke detector location.



Example of 30 ft (9 m) spacing criterion for dwellings with interior floor areas greater than 1,000 ft² (93 m²). (Source: NFPA 72, National Fire Alarm and Signaling Code Handbook, 2013.)



Example of spacing criterion of one or more smoke alarms for every 500 ft² (46 m²) of interior floor area on every floor greater than 1000 ft² (93 m²). (Source: NFPA 72, National Fire Alarm and Signaling Code Handbook, 2013.)



Example of smoke alarm requirements for large house with multi-floor spaces. (Source: NFPA 72, National Fire Alarm and Signaling Code Handbook, 2013.)

Emergency Evacuation Plan

To establish and regularly practice a plan of escape in the event of fire, the following steps are recommended by the National Fire Protection Association:

1. Position your detector or your interior and/or exterior sounders so that they can be heard by all occupants in your home.
2. Determine two means of escape from each room. One path of escape should lead to the door that permits normal exit from the building. The other should be an alternate escape, such as a window, should your path to that door be impassable. Station an escape ladder at such windows if there is a long drop to the ground.
3. Sketch a floor plan of the building. Show windows, doors, stairs, and rooftops that can be used to escape. Indicate escape routes for each room. Keep these route free from obstructions and post copies of the escape routes in every room.
4. Assure that all bedroom doors are shut while you are asleep. This will prevent deadly smoke from entering while you escape.
5. Try the door. If the door is hot, check your alternate escape route. If the door is cool, open it cautiously. Be prepared to slam the door shut if smoke or heat rushes in.
6. When smoke is present, crawl on the ground. Do NOT walk upright, since smoke rises and may overcome you. Clearer air is near the floor.
7. Escape quickly; don’t panic.
8. Establish a place outdoors, away from your house, where everyone can meet and then take steps to contact the authorities and account for those missing. Choose someone to assure that nobody returns to the house — many die going back.

Warranty and Service Information

The following warranty and service information is provided to the customer, verbatim, in the *Getting Started Guide* that should have been given to them by the technician who installed the system.

Warranty Information

For the complete warranty and service plan, including terms and conditions, go to: **support.vivint.com/product/policies**.

(NOTE: For information about Vivint patents, go to: **vivint.com/legal/patents**.)

Service Information

Your local Vivint Smart Home Pro™ technician is the person best qualified to service your system. Should your system require service due to ordinary wear and tear while under contract, we will repair or replace the equipment for free. Note that trip fees may apply.

IMPORTANT: THE SYSTEM MUST BE CHECKED BY A QUALIFIED VIVINT TECHNICIAN AT LEAST ONCE EVERY THREE (3) YEARS. There are no user-servicable parts inside the control panel. For service, repair, or product upgrades, contact Vivint Customer Care.

For all inquiries about service related to the warranty, call Vivint Customer Care at **1.800.216.5232**.

Additional Panel-Specific Information

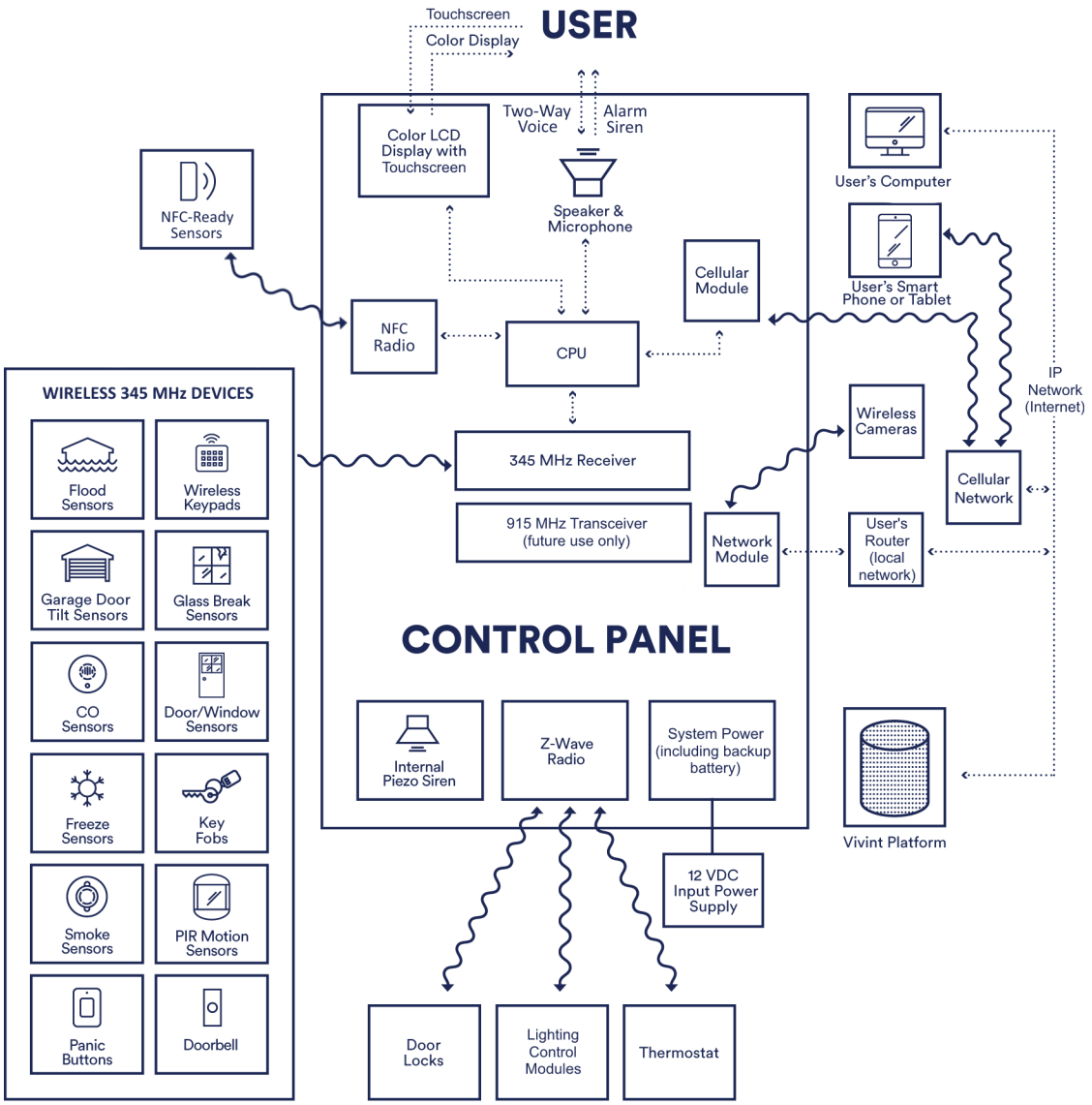
The sections below provide important **panel-specific** information where some details differ between the varying panel types. For example: system components and configuration, technical hardware specifications, and standards certifications.

Note that the previous sections in this *Regulatory Compliance Guide* pertain to all of the Vivint control panels, devices, etc., and the overall Vivint Smart Home system, as stated in the *Introduction*.

Smart Hub Panel:
System Diagram

The diagram below shows the distinct components of an overall system — for the **Vivint Smart Hub V2** panel — and how these various components communicate and interact, including the control panel; internal modules; user input and interaction features (voice and touch); wireless security sensors and keypads; Z-Wave devices; wireless cameras; remote access devices (smartphone, tablet, and computer via the mobile and web apps); power supply; Wi-Fi, cellular, and broadband IP networks; and the Vivint Platform.

Vivint Smart Hub Panel System



Smart Hub Panel:
Hardware Specifications and Standards Certifications

This section provides a comprehensive list of hardware specifications and standards certifications for the:

Smart Hub V2 Panel

Vivint Part Number (P/N)

- VS-SH2000-000

Compliance Model Number (M/N)

- CP04

System Parameters

- 100 wireless zones
- 50 users
- 20 key fobs
- 30 keypads
- 232 Z-Wave devices (thermostats, door locks, lighting control outlet modules, etc.)

Display

- 7" capacitive multi-touch touchscreen
- 1024 x 600 (WVGA) resolution
- 24-bit color
- LED lifetime: 50,000 hours at half brightness

System

- 915 MHz transceiver (future use only)
- 345 MHz receiver
- Z-Wave radio
- NFC radio
- Speaker: 2.5 W, max 85 dB SPL at 3 feet (1 m)
- Sounder: Piezo, 100 dB at 3 feet (1 m)

- AC adapter (12 V adapter with detachable cord):
  - Input: 100-240 VAC 50/60 Hz (Max. 1.0 A)
  - Output: 12 V VDC 2.5 A
- Battery: minimum 3470 mAh, 3.7 V Lithium-ion Polymer (providing a minimum of 24 hours of internal backup battery power when operating normally in low power mode)

I/O

- Dual microphone
- Dual-Band Wi-Fi module: 802.11 a/b/g/n/ac client and AP mode
- Ethernet port
- LTE cellular module

Environmental (Operating Temperature and Humidity Range)

- The panel will operate normally at temperatures between 0°C to 49°C (32°F to 120°F). For optimal battery operation, the recommended temperature range is 0°C to 35°C (32°F to 95°F).
- The panel will operate normally at humidity levels of 0 – 90% non-condensing.

Standards Certifications

- FCC: 47CFR Part 15, Subpart B, Class B, and 47CFR Part 15, Subpart C
- Industry Canada (IC): CAN ICES-3(B)/NMB-3(B); RSS-GEN; RSS 210/CNR 210
- AS/NZS: CISPR22
- cETLus Listed
- ETLus Classified
- Z-Wave Alliance
- *UL 985 (Standard for Household Fire Warning System Units) — NFPA*
- *UL 1023 (Standard for Household Burglar-Alarm System Units)*
- *UL 1610 (Standard for Central-Station Burglar-Alarm Units)*
- *UL 1635 (Standard for Digital Alarm Communicator System Units)*
- *ULC-S545 (Standard for Residential Fire Warning Systems Control Units)*
- *ULC Subject C1023 (Standard for Household Burglar Alarm System Units)*
- *ANSI/SIA CP-01-2014 (Control Panel Standard - Features for False Alarm Reduction)*

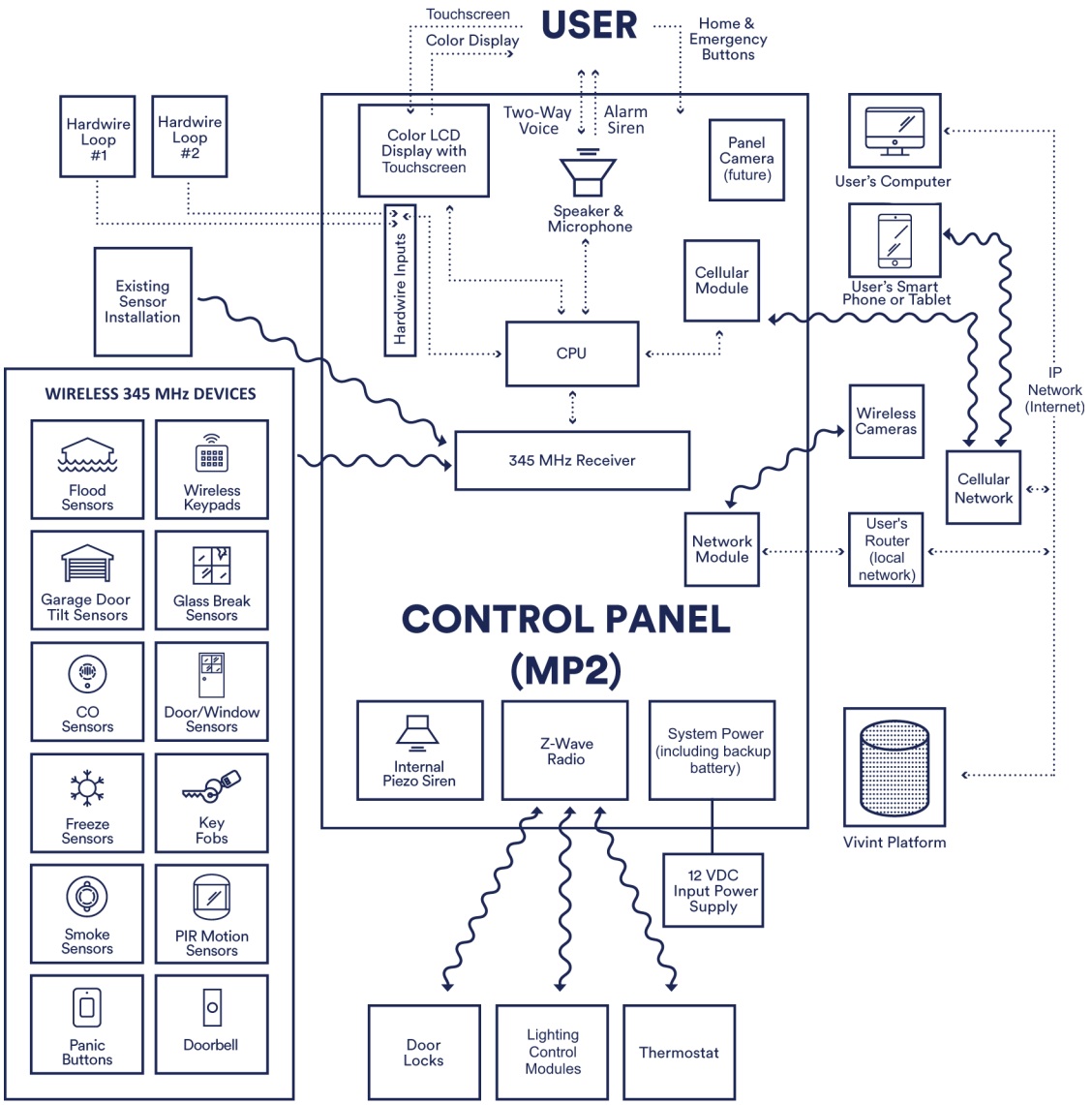
Regulatory Agency Certification Identifiers (FCC and IC)

- FCC ID: 2AAAS-CP04
- IC: 10941A-CP04

SkyControl Panel:
System Diagram

The diagrams below shows the distinct components of an overall system — for the Vivint SkyControl panel — and how these various components communicate and interact, including the control panel, internal modules, user input and interaction features (voice and touch), wireless security sensors and keypads, Z-Wave devices, wireless cameras, remote access devices (smartphone, tablet, and computer, via mobile and web apps), power supply, Wi-Fi cellular and broadband IP networks, and the Vivint Platform.

Vivint SkyControl Panel System



SkyControl Panel:
Hardware Specifications and Standards Certifications

This section provides a comprehensive list of hardware specifications and standards certifications for the:

SkyControl Panel

Vivint Part Number (P/N)

- V-MP2-345

Compliance Model Number (M/N)

- CP01

System Parameters

- 100 wireless zones
- 2 wired zones
- 50 users
- 20 key fobs
- 30 keypads
- 2 open collectors
- 232 Z-Wave devices (thermostats, door locks, lighting control outlet modules, etc.)

Display

- 7" capacitive multi-touch touchscreen
- 800 x 480 (WVGA) resolution
- 24-bit color
- 350 nits (luminance)
- LED lifetime: 50,000 hours at half brightness

System

- 345 MHz receiver
- Z-Wave radio
- Speaker: 5 W, max 85 dB SPL at 3 feet (1 m)
- Sounder: Piezo, 100 dB at 3 feet (1 m)
- AC adapter: 12 V, white, screw terminals for +/- wire connection termination (note that there is an *optional* pre-wired adapter also available for use with the control panel)

- Battery: 3700 mAh, 7.4 V Lithium-ion Polymer (providing a minimum of 4 hours of internal backup battery power when operating normally in low power mode)
- External backup battery (optional): Altronics eFlow3N power supply with two WKA12-10F2 or UB 12100-S batteries (providing 24 hours of external backup battery power for *UL 985* compliant fire alarm systems)

I/O

- Microphone
- Camera: Front facing, 640 x 480 resolution, landscape orientation
- Open collectors: 5 Amps, 16 V (with external power supply), quantity 2
- External siren: 500 mA, 5.6 to 14 V, quantity 1
- RS232: RX, TX, common (for service only)
- Broadband module: Ethernet (RJ45) and 802.11 b/g/n client and AP mode
- Cellular module (optional):
  - CDMA (1xRTT)
  - GSM (HSPA)
- Layout of terminal block connectors:
  - 12, 11: Power terminals (for 12 VDC input power)
  - 10, 9: Open collectors 1 and 2
  - 8, 3: Ground
  - 7, 6: Bell +/-
  - 5, 4: Zones 1 and 2
  - 2, 1: Serial port (for service only)

Environmental (Operating Temperature and Humidity Range)

- The panel will operate normally at temperatures between 0°C to 49°C (32°F to 120°F). For optimal battery operation, the recommended temperature range is 0°C to 35°C (32°F to 95°F).
- The panel will operate normally at humidity levels of 0 – 90% non-condensing.

Standards Certifications

- FCC: 47CFR Part 15, Subpart B, Class B, and 47CFR Part 15, Subpart C
- Industry Canada (IC): CAN ICES-3(B)/NMB-3(B); RSS-GEN; RSS 210/CNR 210
- AS/NZS: CISPR22
- cETLus Listed
- ETLus Classified
- Z-Wave Alliance

- *UL 985 (Standard for Household Fire Warning System Units)*
- *UL 1023 (Standard for Household Burglar-Alarm System Units)*
- *UL 1635 (Standard for Digital Alarm Communicator System Units)*
- *ULC-S545 (Standard for Residential Fire Warning Systems Control Units)*
- *ULC Subject C1023 (Standard for Household Burglar Alarm System Units)*
- *UL 1610 (Standard for Central-Station Burglar-Alarm Units)*
- *ANSI/SIA CP-01-2014 (Control Panel Standard - Features for False Alarm Reduction)*

Regulatory Agency Certification Identifiers (FCC and IC)

- FCC ID: 2AAAS-CP01
- IC: 10941A-CP01