VT8000 Room Controllers

Samsung SmartThings App Integration Guide Connecting the Room Controller to the Samsung SmartThings App



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Introduction

This integration guide is applicable to the Room Controllers that follow:

- VT8350 Low Voltage (24VAC) Fan Coil Unit (FCU) and Zone Control.
- VTR8350 Line Voltage Fan Coil Unit (FCU).
- VT8650 Rooftop Unit (RTU), Heat Pump and Indoor Air Quality (IAQ).

Samsung SmartThings App

SmartThings is a smart home ecosystem of hubs and products developed by Samsung and other third parties.

With SmartThings, you can connect and control multiple devices quicker and easier. From your smartphone, you can monitor, control and automate your SmartThings compatible devices. To get started, simply purchase the SmartThings Hub, download the free SmartThings app, then add your connected devices.

There are two apps, the new "SmartThings" app, and the older "SmartThings Classic" app. You can use both to see which one you prefer. However, if you are a new user of SmartThings, it is recommended to start with the "SmartThings" app instead of the "SmartThings Classic" app.

Key features:

- From your smartphone, control and check the status of devices registered through a SmartThings Hub.
- Group multiple devices into a Mode and operate them simultaneously.
- Configure the settings of devices, including the time and operating conditions, and operate them automatically.
- Invite other users so they can view and operate the device.
- The notification feature allows you to receive status information about your device.
- · Receive alerts from connected devices when there's unexpected activity.
- Integrates with IFTTT (If This Then That) easily for total home control.

Note: The SmartThings app, the Samsung account and their related services are owned by SmartThings, Inc. and Samsung Electronics Co., Ltd. respectively. Their products and services may change over time and may differ from the contents of this document. For more information go to <u>www.smartthings.com</u>.

Samsung SmartThings Hub

While the SmartThings App is compatible with various Wi-Fi products, adding the SmartThings Hub allows you to control ZigBee and Z-Wave products. The SmartThings Hub requires the free SmartThings app for Android or iPhone.

Key features:

- Compatible across a wide range of devices and brands, eliminating the need to buy multiple hubs.
- Wireless connection to your internet router's Wi-Fi network, using the Samsung cloud to communicate between the SmartThings app and the Hub.
- Connect to a wide range of wireless smart devices and make them work together.
- Control connected devices in your home with voice commands using SmartThings and Amazon Alexa or Google Home.
- Protocols: ZigBee, ZigBee 3.0, Z-Wave, Cloud-to-Cloud, LAN and Wi-Fi.

SmartThings Groovy IDE

The SmartThings Groovy IDE (Integrated Development Environment) allows you to integrate devices directly with the SmartThings Hub using ZigBee, Z-Wave, or LAN/HTTP protocols. The SmartThings Hub ZigBee settings are located in the Groovy IDE website, accessed preferably using a PC/laptop. A Samsung account is required to login to the IDE website located at https://graph.api.smartthings.com.

Room Controllers

The Room Controller is connected to the Samsung SmartThings Hub using the ZigBee wireless protocol. The Room Controller's ZigBee Network settings must be configured with the Hub's ZigBee settings (located in the Groovy IDE) before you can connect to the SmartThings app.

Note: For more information go to <u>www.viconics.com</u>.

Note: The Hub's Pan ID is in hexadecimal format while the Room Controller's Pan ID is in decimal format. Search the internet for a Hexadecimal to Decimal Converter to do the conversion.

Step 1: SmartThings Hub Installation

Note: For more information and instructions to complete the steps below, go to SmartThings Support at <u>https://support.</u> <u>smartthings.com/hc/en-us</u>, scroll down to Additional Support, click on Guide to SmartThings, then click on Setting up an account, the Hub, and Things.

1. Install the SmartThings App onto your smartphone.



- 2. Sign up for SmartThings in the SmartThings app:
 - SmartThings uses your Samsung account.
 - Sign in if you already have an account, or touch Create account to make one.

Note: Login info for your Samsung Account will be sent by email.

- 3. Set Up a SmartThings Hub:
 - Follow the instructions in SmartThings Support. Go to the link in the note above.

Note: You can change the Wi-Fi network that the SmartThings Hub is connected to in the SmartThings app. You can also connect the Hub via Wi-Fi after setting it up via Ethernet. This will not affect any devices connected to the Hub, and does not require a factory reset.

Step 2: Adding the Room Controller to the Network

Get your Hub's ZigBee Network Information

The Room Controller must be configured manually with the SmartThings Hub ZigBee network Pan ID and Channel, located in the SmartThings Groovy IDE website.

- 1. Go to the SmartThings Groovy IDE website at <u>https://graph.api.smartthings.com</u>, then login with your Samsung account.
- 2. Click on My Locations (sometimes the My Hubs list is empty until you click on My Locations first).
- 3. Click on your Hub's location. Example: My home.

🔁 🖅 😥 Location List 🛛 🗙	+ ~				-	٥	×
\leftarrow \rightarrow \bigcirc \textcircled{a} https://gr	aph-na04-useast2.api.smartthing:	s.com/location/list		□ ☆	te ll	Ê	
My Locations My Hubs	Ay Devices My SmartApp	s My Device Handlers My Publication Rec	quests Live Logging Doc	Welcome back, ettore.colic	:hio@gma	iil.com	
Locations					New	Location	
Name	Events	Notifications	Devices	Installed SmartApps			
My home	events	notifications	devices	smartapps			
© 2020 SmartThings, Inc. All rights res	erved.		Benefits	Shop Biog Developers Support Terms of U	se Priv	acy Poli	CY
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4. Scroll down to Hubs, then click on your SmartThings Hub.

Temperature Scale	С	
Alarm System Status	Disarmed	
Current Mode	Night	
Modes (create new)	• Away	
	Home	
	- Night	
Hubs 🔶	SmartThings Hub (ACTIVE)	
Groups	Main Entrance	
	Dinette - Patio Door	
	Living room	
	Garage	
	Basement	
	Exercise Room	
Devices	List Devices	
Events	List Events	
Notifications	List Notifications	
Installed SmartApps	List SmartApps	
Favorites	List Favorites	
Scenes	List Scenes	

- 5. Scroll down to ZigBee to see your Hub's Channel and Pan ID numbers.
- 6. Convert the Pan ID from hexadecimal to decimal.

« My home Location SmartThings Hub	
Name	SmartThings Hub
Hub ID	D052A8B382290001
Status	ACTIVE
Firmware Version	000.029.00008
Hardware Version	
Location	My home
Last Activity At	2020-04-08 7:40 PM UTC
Last Ping From Hub At	2020-04-08T19:40:25.423Z
Date Created	2019-04-13 1:39 AM UTC
Last Updated	2020-03-04 6:38 PM UTC
IP Address	192.168.2.57
MAC Address	28:6D:97:75:2E:A9
Last Booted	2020-04-07 12:32 AM UTC
Battery	On battery power: false
Settings	Presence sensor timeout: 2
ZigBee	State: Functional Version: 3.0.16 EUI: 286D970002015B97 Channel: 25 Node ID: 0000 Pan ID: D81A OTA: disabled Unsecure Rejoin: true

7. On your Room Controller, go into the hidden configuration menu.



-Touch and hold this point for 3 seconds to enter set-up mode

Note: If a configuration/installer password is activated to prevent unauthorized access to the configuration menu parameters, you will be prompted to enter your password before proceeding.

- 8. Touch Network, then go to the ZigBee Network screen.
- 9. Change the Node type to Router, then change the Channel and PAN ID decimal numbers so that they are the same as the Hub's numbers.

1/2 Setup	Network	:	1/2 ZigBee Ne	twork
Network	Onboard prot.	Zigbee	Node type	Router
Configuration	Optional prot.	None	PAN ID	55322
Setpoints	Wired protocol	None	Channel	25
Display			Security	Low
Service view			Network Status	Joined
Test Outputs			Permit join	Off
<u></u>	<u>R</u> R			

Adding the Room Controller to the Hub

1. In your SmartThings app, touch +, Add Device, then Scan nearby to detect your Room Controller.

 $\ensuremath{\textbf{Note}}\xspace$: Make sure the Room Controller is in ZigBee range of the Hub.



- 2. The scan can take up to a minute. If it fails, just scan again.
- 3. Your Room Controller will be added to your Home screen. Touch < in the top-left corner a few times to return to the Home screen where the Room Controller will appear at the bottom.
- 4. You can move your Room Controller to another location. Example: Living Room.



5. On your Home screen, touch your Room Controller to view its user interface.

09:21 -7 🕆 📼	09:21 7
≝• + :	<pre>VT8350 Home - Living room</pre>
	Fan speed
Home	Max
Living room UNB350 22.8 °C Exercise Room >	Temperature and humidity III 17.1 °C 71.0 % Set temperature 4 + + Heating temperature 22.28 °C Cooling temperature 23.94 °C
No devices	
	Mode
Basement >	Auto 🌣
	State
SmartThings Hub	Heating
Connected	Controls History

6. The Room Controller will show Online in the ZigBee Network status parameter.

1/2 ZigBee Net	twork
Node type	Router
PAN ID	55322
Channel	25
Security	Low
Network Status	Online
Permit join	Off

Step 3: Using the SmartThings Apps

SmartThings Classic App

Room Controller parameters that are visible and/or configurable on the user interface:

- Room Temperature.
- Relative Humidity.
- System Mode.
- Occupancy Command and Status.
- Occupied and Unoccupied Heating and Cooling Setpoints.

Change the Room Controller system settings by touching the following:

- System Mode button toggles between Off, Auto, Cool and Heat.
- Occupancy Command button toggles between Local occupancy, Occupied and Unoccupied.
- Up/Down arrows adjust the temperature setpoints by 1°F (0.5°C).
- Reload button requests the Hub to poll.
- Configure button requests a poll and binding.
- 1. To add your Room Controller to your Home screen, use the Manage Favorites menu. Tap to add favorites, select your Room Controller, then Save.
- 2. On your Home screen, touch your Room Controller to view its user interface.





3. The color of the Room Temperature background changes based on effective system mode (heating = orange, cooling = blue, idle = green).



SmartThings App

Room Controller parameters that are visible and/or configurable:

- Fan Speed (VT8350, VTR8350).
- Fan Mode (VT8650).
- Room Temperature.
- Relative Humidity.
- Occupied Heating and Cooling Setpoints.
- System Mode.
- Effective System State (Heating, Cooling, Idle).

Change the Room Controller system settings by touching the following:

- System Mode settings button brings up a menu to change between Auto, Cool, Heat and Off.
- Fan Speed slide settings on the VT8350 and VTR8350 are as follows:
 - Off and Max set the fan mode to Auto.
 - Low, Medium and High set the fan speeds directly.
 - Fan Mode button settings on the VT8650 selects between On, Auto and Circulate (smart).
- +/- buttons adjust the temperature setpoints by 1°F (1°C).
- 09:27 🗸 09:27 🗸 09:28 1 all 🕆 🔳 ul 🕆 🔳 VT8350 VT8350 VT8350 : < < < ÷ Цc Fan speed Fan speed Fan speed Max Max Max Temperature and humidity Temperature and humidity 16.8 ∘c 16.8 ∘c 16.8 ∘c 69.0 % 69.0 69.0 % Mode Set temperature Set temperature Set Auto + + + + Cooling temperature Heating temperature Heating temperature Cooling temperature Heat 19.39 ∘c 17.72 °c 16.3 ∘c 15 11 °c Off _ _ Cance Mode Mode Heat \$ \$ Heat \$ Auto State State Heating Cooling Cooling History Controls History Controls
- 1. To change the System Mode, touch the Mode settings button, then select the mode from the list.

2. To change the Fan Mode on the VT8650, touch one of the three Fan Mode buttons at the bottom of the screen.



SmartThings App Automation and Notifications

Automations is a fun feature that allows you to create notifications, control other devices and change your home's status (Home, Night, Away) based on different conditions. These conditions include Time events (at 12:00 set Occupancy to Away), Device status (Motion detected in basement), Member location (I am home) and Location (home is set to Away). The format of an automation is IFTTT (If This Then That). Example: If VT8650 temperature is equal to or above 21.0° C, then send a notification to all members.

Setting up an automation in the SmartThings App (Example: When VT8650 is heating, trigger notification):

- 1. Add condition:
 - a. In your SmartThings app, touch + (or touch the menu, then Automations), Add Automation, then Add condition.
 - b. Choose the type of condition that triggers an action. Example: Device status.

Add What do you want to add to this location? Ib Device Ib Room Ib Noice assistant Ib Scene Ib Add condition Ib Add condition Ib Add condition Ib Room <	09	:33⋪		I 🕈 🖿]	09:33 ৵			09:	33 <i>4</i> .iil 🗟 🗖
What do you want to add to this location? I bevice Room Voice assistant Voice assistant Add condition Scene Automation Automation SmartApp Member	<		Add			Cancel	Add automation	Done	<	Add conditions
Add conditions that will activate this automation. Room Voice assistant Add condition Then Select an action from the options below. Add action Add action Member location Example: when the door opens Member location Example: when the mode is set to Away Member location Example: when the mode is set to Away	Wha	t do you want to add	to this location?		-	lf				Time
Room Voice assistant Scene Add action Add action Add action SmartApp Member		Device			-	Add condition:	s that will activate this au	tomation.		Example: every day at 8:00 AM
 Voice assistant Scene Automation SmartApp Member Member 	·	Room			-	-	Add condition			Example: when the door opens
Automation Add action SmartApp Image: Constrained of the option option option option option option Member Member		Voice assistant	:	0	-	Then Select an actio	on from the ontions below	<i>u</i>	2	Member location Example: when I'm at home
SmartApp (2) Member		Automation	+				Add action		9	Location mode Example: when the mode is set to Away
Le Member	:	SmartApp		0						
	-	Member								

- c. Select the device. Example: VT8650.
- d. Select the condition. Example: State.
- e. Select the state. Example: Heating.
- f. Touch Save in the top right corner to save the condition.

g. Touch Done to return to the If-Then screen.



2. Add action:

- a. Touch the Add action button.
- b. Touch Notify someone.
- c. Touch Send notification to members.
- d. Enter a message. Example: VT8650 in heating mode.
- e. Touch Done to return to the If-Then screen.

34 √	·			09:3	35⋪		09:35 ৵		.ul 🕆 🔳
ancel A	dd automation	Done		<	Add action (i)		<	Send notification to mem	bers Done
lf				(Notify someone		MESSAGE		
VT8650 (E State: Heati	asement)	0		٢	Control devices		VT8650	in heating mode	0
	•			9	Change this location's mode		Attach pł	hoto	
Add condition							No camer	as	
Select an action frc	Add action		•			-			
							"mode	e" modern	model
							q w	ertyu	i o p
							as	sdfghj	j k l
							<u>ۍ</u> ۲	z x c v b r	n m 🗵
							123	space	done
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f. Touch Done again, give the Automation a name, then Touch OK. The automation will be saved.

09:36	7	
Cancel	Add automation	Done
lf		
	VT8650 (Basement) State: Heating	0
Add co	ndition	
Ther	า	
	Send notification to members SE8650 in heating mode	۵
	a terre a la constante de la co	
Add ac	uon	

g. A notification will be sent when the VT8650 is heating.

Note: There could be a delay of up to 10 minutes due to the Hub's polling.

3. Add Control devices:

The same steps can be repeated to control other devices. Instead of choosing "Notify someone", choose "Control devices".

- a. Touch Control devices.
- b. Select the device. Example: VT8650.
- c. Choose a parameter to control (like Fan Speed or Mode).
- d. Choose the parameter value that triggers the action.

09::	35 √	.ul 🗢 🗩
<	Add action (i)	
	Notify someone	
	Control devices	
Y	Change this location's mode	