대성셀틱에너시스

SINCE 1947 DAESUNG

USA-oriented IoT User Manual

에너지위너상 수상

에너지효율 1등급

대성 S-Line 콘덴싱

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FCC STATEMENT

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 using 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.

FCC STATEMENT

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.

(2) This device should accept any interference received, including interference that may cause undesired operation.

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this equipment.

These changes may invalidate the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

- This equipment complies with FCC RF radiation exposure limits set for an uncontrolled environment.

- This device and the antenna may not be co-located or operating in conjunction with any other antenna or transmitter.

- The antenna used for this transmitter should be installed at least 8 inches (20 cm) from anyone.

Safety Information (1)

▶ Safety messages used in this manual

- Please follow all safety instructions in this manual. In order to avoid unsafe operating conditions, property damage, injury, or death.

- Indicates a hazardous situation that could result in death or serious injury.

- Indicates a potentially hazardous situation which, if not avoided, could result in minor injury or property damage.

⚠ Warning

- This device is intended for indoor use only. Install this unit indoors and use it.

- Use only the supplied power adapter with the VST Gateway. If you are disconnecting the device from the power supply, remove the power adapter.

- Do not wipe the unit with water or a damp cloth.

- Do not store flammable materials near the unit. This may cause a fire.

- Do not attempt to disassemble or repair the device. If the device is damaged, there is a danger of electric shock.

- Any attempt to disassemble or repair the device will void the VST Gateway's Limited Warranty. VST Gateway is not responsible for damage or injuries due to invalidation of the Limited Warranty.

Safety Information (2)

Caution

- This product may cause radio interference to wireless equipment. Depending on your wired / wireless network and installation environment, performance and functionality may be restricted or unavailable.

- When using this product wirelessly, if there are metal objects around or there are many obstacles, the wireless performance may be considerably reduced and it may not work. Please install it in open space as much as possible.

- This product can communicate securely using authentication and encryption technology, but it can be intercepted because it uses radio waves. Please set up the security of your wireless router in your judgment and responsibility.

- Use only the accessories of the supplied VST Gateway.

- VST Gateway is not responsible for any damage or injury to third-party accessories, such as power adapters, cables, or antennas.

- Using improper tools or excessive force during installation can damage the unit.

- Do not expose the unit to direct sunlight or high temperatures for prolonged periods.

- Exposure to prolonged sunlight or extreme temperatures can permanently damage internal parts of the device.

- Do not install in a humid place, especially where moisture can get inside the unit. There is a risk of product damage and electric shock.

- The operating temperature of the device is 0°F ~ 113°F (0°C ~ 45°C).

- Do not use loose or damaged cables.

- If the connection is poor, the device may malfunction.

1. Product Information

- VST Gateway and Smart I/O are a device for remotely controlling and monitoring a boiler or water heater through the smartphone APP.

- Boilers, water heaters, or cascade systems can be connected to the VST Gateway and Smart I/O.

- If the function of the VST Gateway is upgraded, it can be updated to the latest through APP in advance.

- The function of the VST Gateway and Smart I/O may be limited depending on the operating environment.

1-1. Product Components

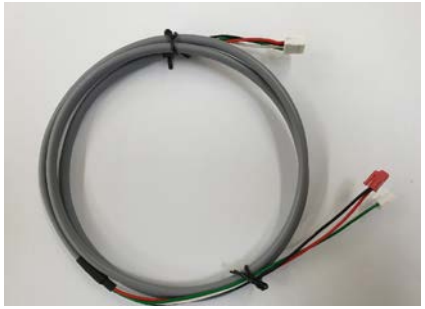
- VST Gateway and Smart I / O are remote converters that can control and monitor the boiler or water heater through smartphone APP.
- A boiler, water heater and cascade system can be connected to the VST Gateway and Smart I/O.

<VST Gateway>

<Power Adapter>

<LAN Cable>

<Smart IO>



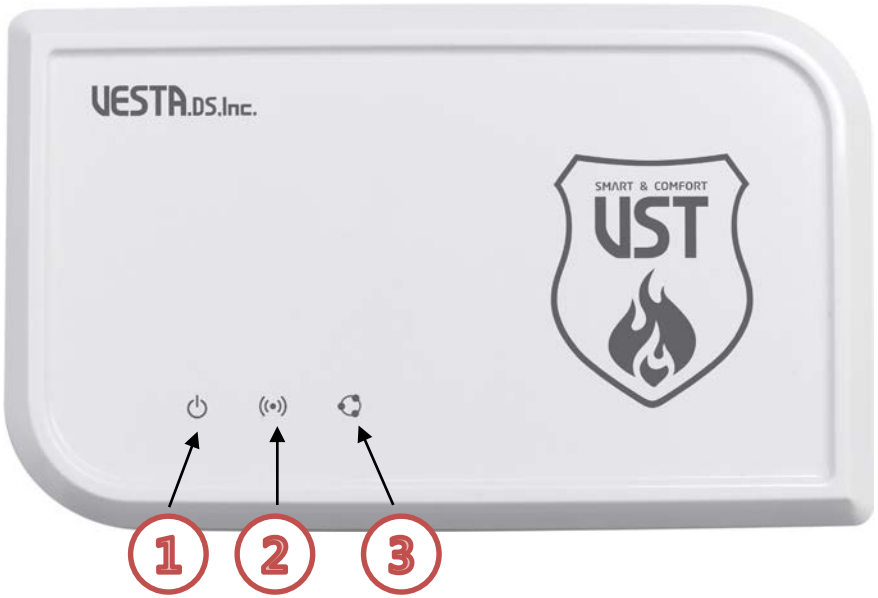
<Smart IO Power & 485 Cable >

<User Manual>

1-2. Name and Function of each part

◆ VST Gateway

<Front Side>



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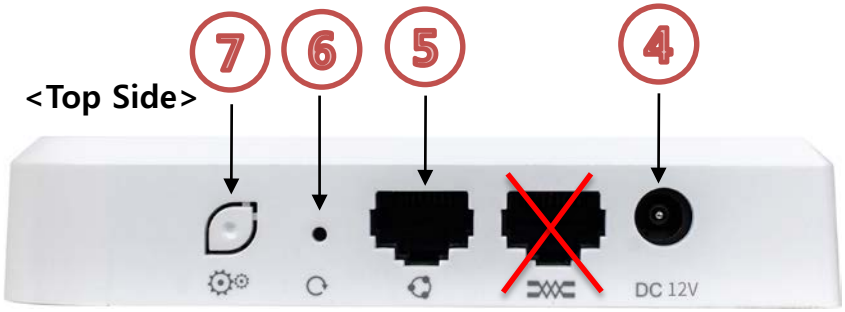

No.	Description
1	Power LED Green LED On when applied DC 12V Power
2	485 Communication LED Green LED On when using 485 Communication.
3	Server Connection LED When connected with Server, Green LED is ON.
4	Power port DC 5V Power Adaptor is connected to Power port.
5	LAN Port Internet LAN line is connected to the LAN port.
6	RESET Button 1. Factory Reset : Press the button longer than 3 seconds to initialize factory settings 2. Reset : Press reset button.
7	SET Button It is used to select. 1. Press once : AP Connection Mode 2. Press three times : Device Update 3. Press for five minutes : Product Scanning function

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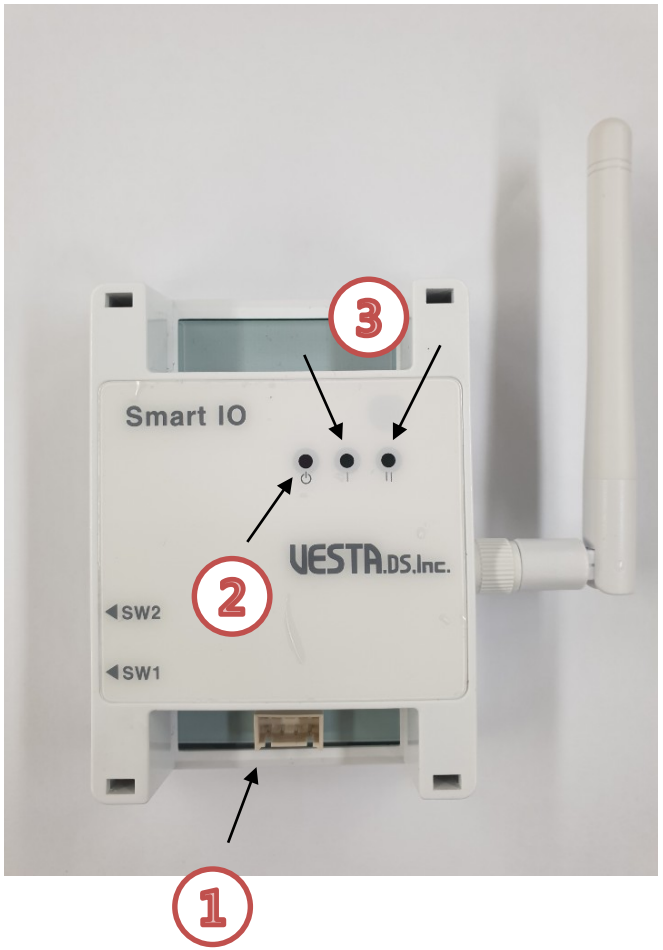
1-2. Name and Function of each part

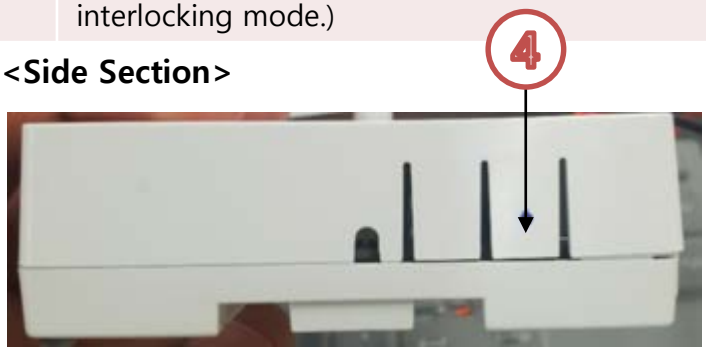
◆ Smart I/O

<Front Side>



No.	Description
1	Smart IO power & 485 communication terminal.
2	Power LED When power is applied to Smart IO, red LED flashes. (Red LED turns on when there is communication failure with Gateway or bad RF transceiver.)
3	Ⅰ, Ⅱ LED *Ⅰ LED: Communication connection status with gateway. *Ⅱ LED: 485 Communication connection status. Pairing mode with Gateway : Simultaneous flashing at 1 second intervals. (See back for details.) - Link status: Green LED Ⅰ and Ⅱ are on. (Blinks when receiving a signal.) - Not interlocked: LED is off.
4	S/W1 Button Interlock ready button: Used when linking with Gateway (Press for 10 seconds to change to the gateway and interlocking mode.)

<Side Section>



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2. VST Gateway and Smart I/O Installation Method

- You can remotely control and monitor the boiler, water heater or cascade system by connecting the VST gateway to Smart I / O, setting the DIP S / W of the PCB assembly and the settings of the boiler or water heater front panel.

▶ Boiler / water heater connection

- Boiler or water heater can be connected via Smart I/O cable.

1. Connect the VST Gateway to Smart I / O wired or wireless.

2. Connect the 4-pin connector of Smart I / O to the RS-485 port and DC12V port of the PCB assembly of the boiler or water heater.

ⓘ Precautions

→ The VST Gateway and Smart I/O can only be operated through the VST boiler or water heater.

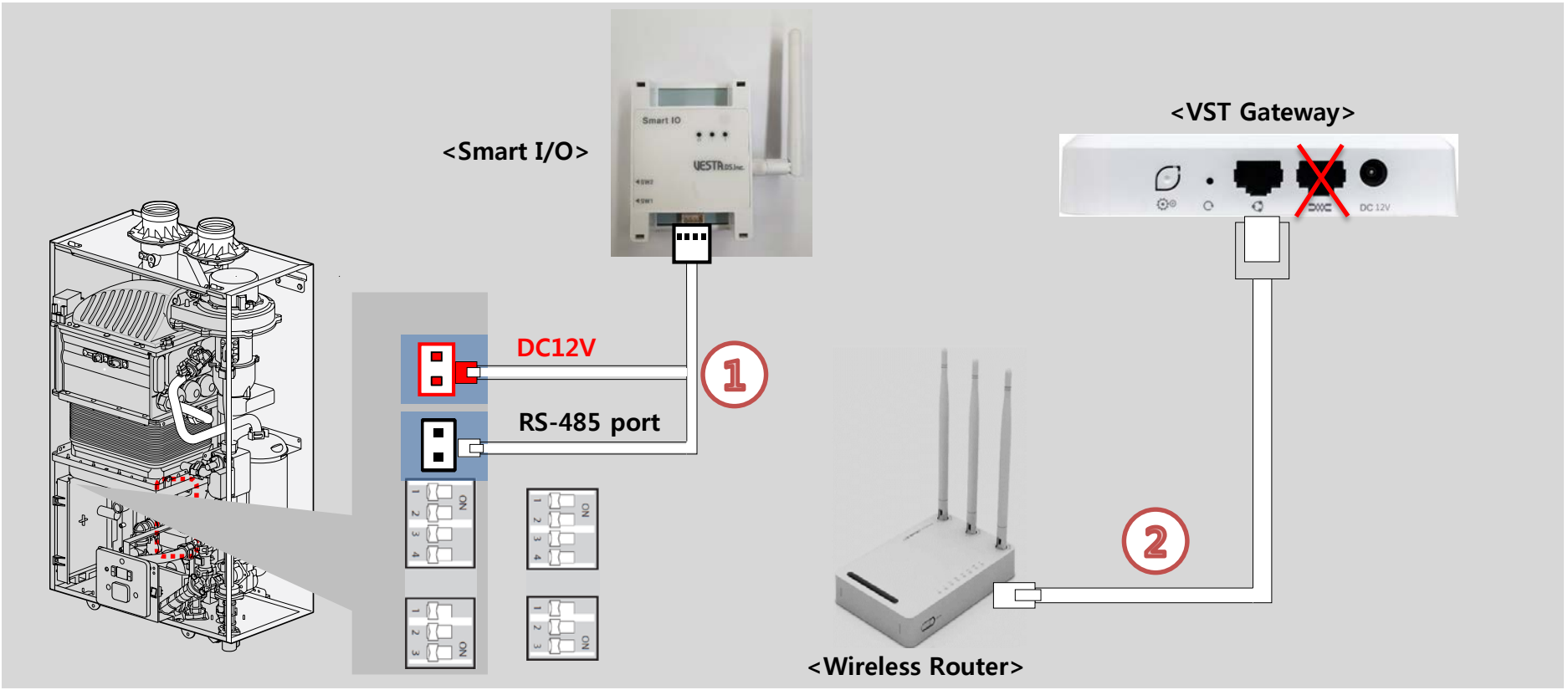
→ The boiler or water heater should be connected to the 4-pin connector of the Smart I / O.

→ The maximum communication distance between the VST gateway and the front panel of the boiler or water heater connected to the Smart I / O is 164 feet (50 meters).

→ Connect the RJ45 connector of the LAN cable to the LAN port of the VST gateway only.

→ If the LAN cable is not properly connected and connected to another port, it may not operate normally.

2. VST Gateway and Smart I/O Installation Method



No.	Description
1	The 4-pin cable of the supplied Smart I / O should be connected to the 4-pin port of the Smart I / O and then connect the RS-485 port and DC12V port of the product's PCB assembly. (The red 2-pin connector should be connected to the DC12V port and the white 2-pin connector to the RS-485 port.) After the connection is complete, you can attach it to the product through the back magnet of the Smart I / O. (*Install the antenna proper position. Place the antenna in a proper position that does not interfere with communication.)
2	Connect the supplied LAN cable to the LAN port of the VST Gateway and connect it with the router in the home. (The LAN cable must be connected to the LAN port only.)

2. VST Gateway and Smart I/O Installation Method

<Top Side>

<Front Side>

No.	Description
3	Connect the supplied adapter to the DC12V terminal of the VST Gateway and apply power.
4	When power is first applied, the power LED turns orange, the 485 communication LED turns red, and the server connection LED turns green. The power LED and 485 communication LED then turn on green and boot for approximately 30 seconds. When the booting is completed, the Power LED turns green, the 485 communication LED flashes green, and the server connection LED turns red. (If the VST Gateway is connected before, the server connection LED will light green)

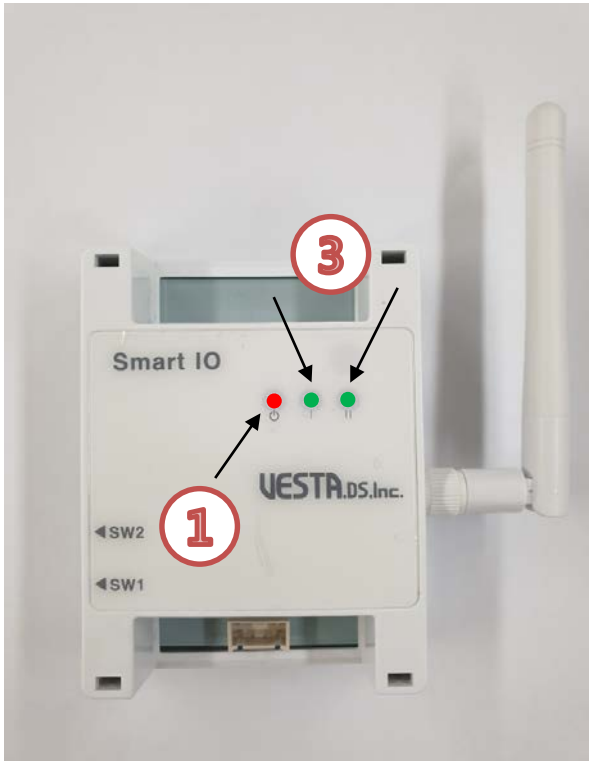
2. VST Gateway and Smart I/O Installation Method

No.	Description
5	The provided LAN cable should be connected between the router LAN port and the gateway LAN port in the home.

2-1. Setting Smart I/O Mode

▶ After completing the installation of Smart I/O as above, execute the following three modes of Smart I/O in order.

<Front Side>



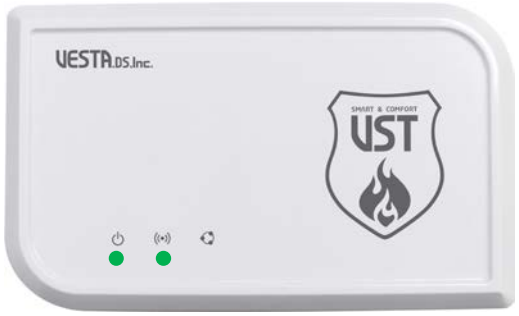
No.	Description
1	The power LED of Smart I / O flashes red every second. (*Smart I / O should be connected to the DC12V and RS-485 port on the PCB assembly.)
2	Press S/W1 button for 10 seconds to enter the pairing mode. (*Pairing mode is the step to link between Smart I / O and VST Gateway.)
3	When you enter the pairing mode by pressing button 1 for 10 seconds, the LEDs Ⅰ and Ⅱ blink green at the same time. (*If Smart I / O enters the pairing mode normally, it should connect with VST Gateway.) (Refer to the next page.)

<Side Section>

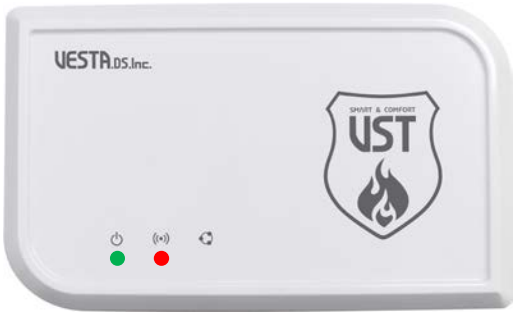
2-2. Setting VST Gateway Mode

▶ After installing Smart I / O as above, execute the following 3 modes of VST Gateway in order.

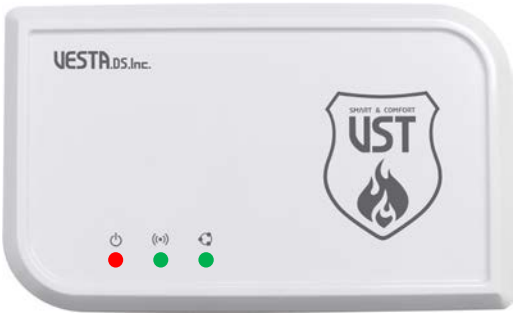
① Pairing Mode



② Scanning Mode



③ AP Mode

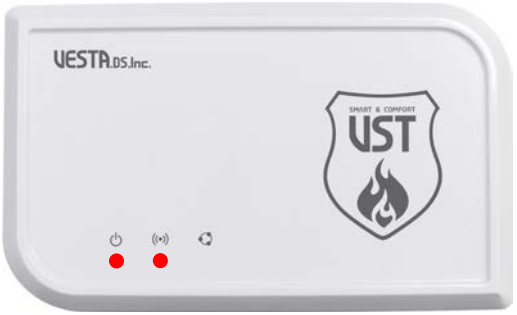


No.	Description
①	Press the "Setup" button for 10 seconds to enter the pairing mode. (The 485 communication LED initially flashes rapidly in red and then flashes green. Press the button until the 485 communication LED changes to green.) (*When the pairing with Smart I / O is completed normally, the power, 485 communication, and server LED lights up green about 30 seconds. Also, If the pairing is not completed normally, the red LED lights up.)
②	Press and hold the "Setup" button for 5 seconds to scan the products connected to the VST Gateway. (The 485 communication LED lights up red quickly and scan progresses. When completed, it returns normally)
③	To use it in conjunction with the APP, press the "Set" button once to enter AP mode. (The Power LED will blink red rapidly.) When the Power LED turns red, the APP will be interlocked according to the sequence. (Refer to linking application and VST Gateway.)

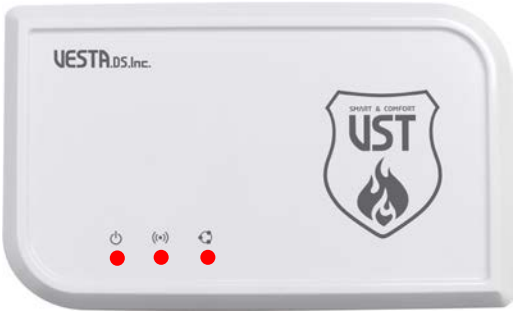
2-2. Setting VST Gateway Mode

▶ How to set additional mode.

1 Updating Mode



2 Factory Reset Mode



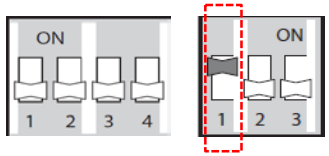
No.	Description
1	Press the "Setup" button three times in a row to update the VST Gateway program. (Power LED, 485 communication LED turns on red quickly and starts to update. When it finishes, it returns normally.) * Version information of VST Gateway can be checked from APP.
2	Press the "RESET" button for 5 seconds to initialize the VST Gateway. (When the VST Gateway enters reset mode, power, 485 communication, server LED blinks rapidly in red.) (* If the "RESET" button of the VST Gateway is pressed once, it will reboot.)

2-3. Configuring the connection setting mode for water heater model

A single water heater model should be set in the following order.
(* Do not adjust the following settings for the boiler model.)

The VRS / VRP water heater connected to the VST Gateway requires connection settings on the DIP switch and front panel of the PCB Assembly.

1. Turn on 1st of PCB assembly 3-switch. (Only the remaining S / W is OFF)



2. If the "+" and "-" buttons are pressed for more than 5 seconds while the thermostat is off, the thermostat enters the EEPROM setting mode.

3. After completing the EEROM Setting, press the "Power" button on the thermostat to turn off the connection of the water heater model.

4. If two or more water heaters are installed, enter the EEPROM Setting Mode and assign individual group ID. Then set the same as above and press the "Power" button to turn it off, group connection setting of the water heater model is completed.

Code	Function
LE	1~5 : Group ID Number (Up to 5 units can be set individually)

< Water heater front panel >

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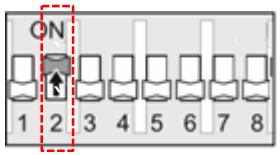
2-4. Configuring the connection setting mode for the boiler model

Single boiler model should be set in the following order.
(* Do not adjust the following settings for the water heater model.)

The VRB / VRC water heater connected to the VST Gateway requires connection settings on the DIP switch and front panel of the PCB Assembly.

1. If two or more boilers are installed, turn on the 2nd switch of the PCB assembly.
   (Only the remaining S / W is OFF)



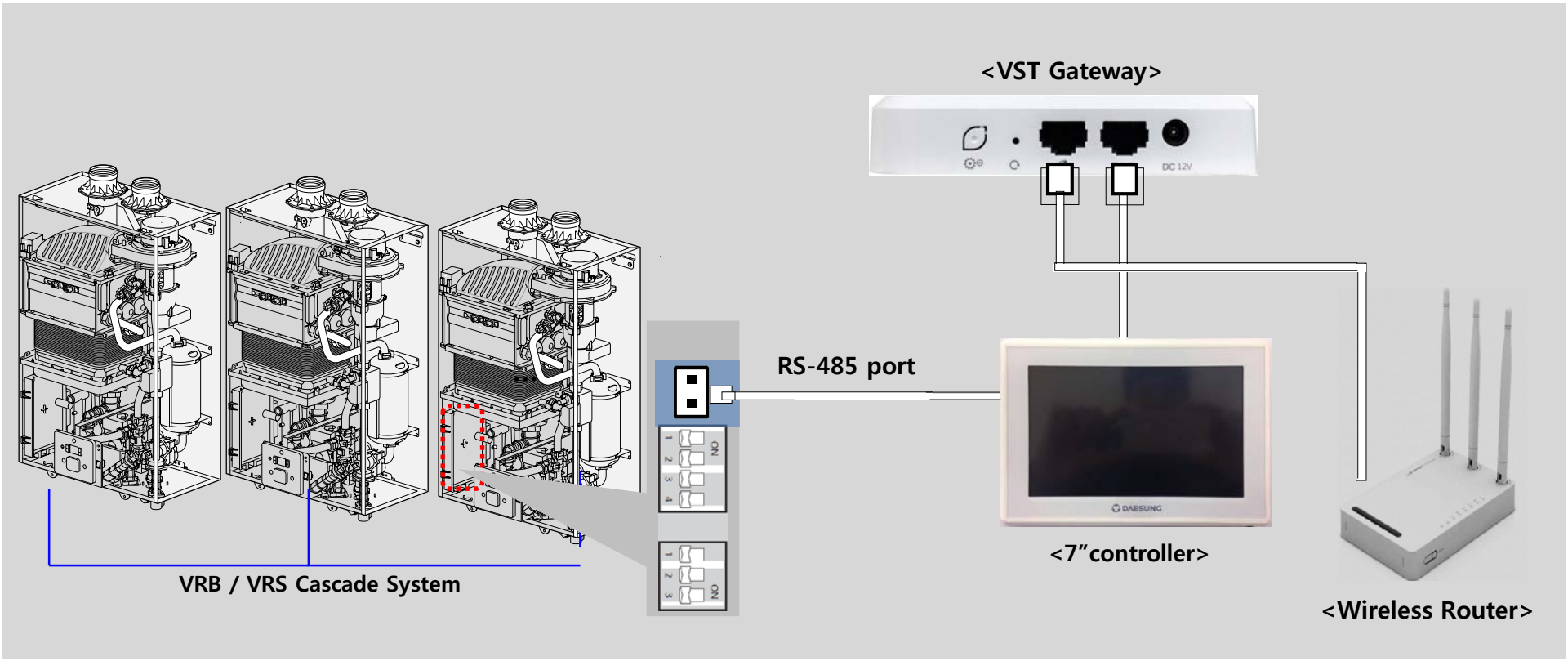
2. If the "+" and "-" buttons are pressed for more than 5 seconds while the thermostat is off, the thermostat enters the EEPROM setting mode.

3. Press the "mode" button to assign the individual group ID as shown in the table below.
   And then pressing the "Power" button to turn it off completes the group connection setting of the boiler model.

Code	Function
CE	1~4 : Group number (Up to 4 units can be set individually)

< Boiler front panel >

2-5. CASCADE Installation method



- A 7"controller is required to connect the VST Gateway to the CASCADE system.

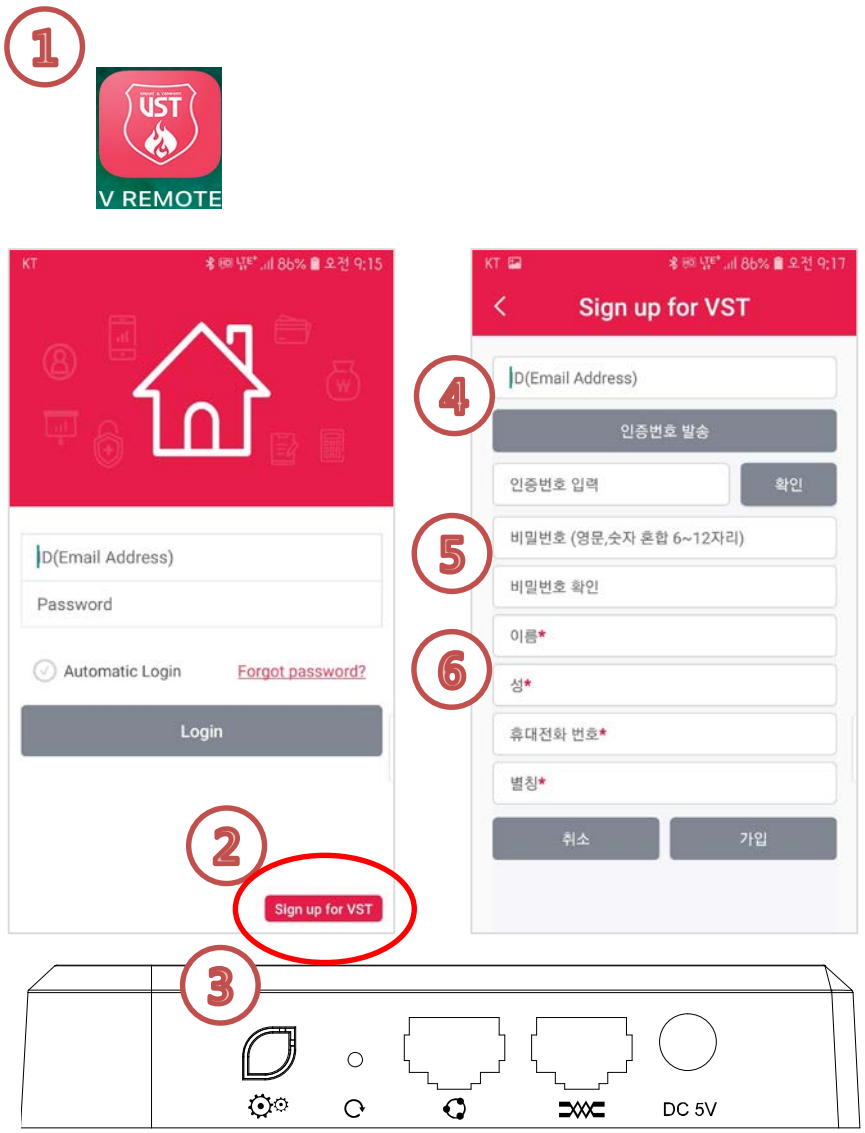
- User can remotely control and monitor the CASCADE system by connecting it to the communication channel of the VST Gateway.

- To connect the VST Gateway to a CASCADE system, you should connect an RS-485 cable to the PCB Assembly of the boiler or water heater via a 7-inch controller.

- CASCADE boilers can be linked to a total of 60 units of 4 groups of 15 boilers.

- CASCADE water heater can be linked to a total of 40 units of into 5 groups of 8 water heaters.

3. Linking Android OS Application and VST Gateway



No.	Description
1	From the Google Play Store, You can search and download "VST" or "V remote". (APP works properly above Android OS version 6.0. It may not normally operate below version.)
2	Execute the APP and register it.(Please refer to the back side for details.) When you are finished signing up, go to the product registration screen.
3	In VST Gateway, press "Set" button once to enter AP mode. (If the Power LED lights red rapidly, it is in AP mode.)
4	Please sign up with your favorite email. To proceed with your identity verification process, An authentication number will be emailed.
5	Set a password by combining alphanumeric characters. (6 ~ 12 digit number). Enter the same password again.
6	Enter your first name, last name, mobile number, and product. Press the "Join" button to complete the registration process. (The product can be changed through <Setup> → <User Management> in APP. This is to distinguish the users of the product.)

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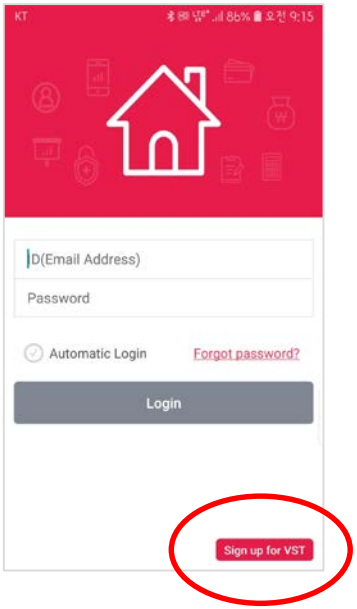
3. Linking Android OS Application and VST Gateway

▶ You can set up a VST APP and Wi-Fi network for the Android OS

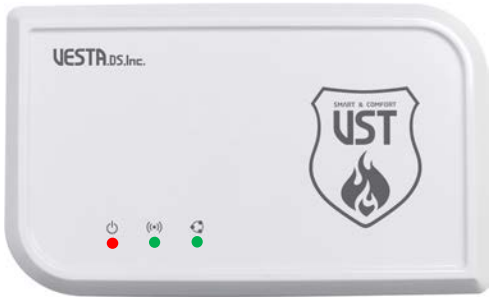
▶ VST APP will be downloaded and installed from the Google Play Store. (APP works properly above Android OS version 6.0. It may not normally operate below version.)

▶ VST APP provides various information about energy management system and function such as operation and control of boiler / water heater.

1. Download and install the VST APP from the Google Play Store on your smartphone.
2. From the login screen of APP, click the subscription button and sign up. You can then remote control and monitor the APP.



3. Please read the Terms of Use and Privacy Management carefully and click the Accept button to start signing up.
4. Enter the required information for signing up.
5. When you are finished signing up, go to the product registration screen.



<AP Mode>

6. First of all, press the setting button on the VST Gateway for more than 5 seconds to scan the connected products.
7. When scanning is complete, press the setup button once and change to AP mode.
   (If Power LED is blinking red, AP mode is entered.)
8. Register in order from the APP registration screen.
   (Please refer to the back side for details.)

3-1. Android OS Application Wired Registration

1. Enter the name of the product to be registered.
   (The name is used to distinguish between multiple VST Gateways.)

2. Select wired or wireless network for product interworking.

3. For the wired mode, you can select dynamic IP and static IP.

4. Select the desired IP option method and click the "Next" button.

5. Select VST Gateway and click the Next button.
   (* If multiple VST Gateways are displayed, select the same 4 digits at the end of the product SSID and 4 digits of the VST Gateway name shown in the APP on the back of the VST Gateway, and click the "Next" button to complete the product registration.)

▶ If VST Gateway is not displayed on the product registration screen, click the "Refresh" button.

▶ If the registration fails, please re-register in the order described in the user's manual.

▶ If Android OS version is below 6.0, APP may not work properly.

3-2. Android OS Application Wireless Registration

1. Enter the name of the product to be registered. The name is used to identify multiple VST gateways.

2. You can select wired or wireless network for product interworking method.

3. Select Wireless Network and click "Next" button.

4. Select VST Gateway and click the Next button.
(* If multiple VST Gateways are displayed, select the same 4 digits at the end of the product SSID and 4 digits of the VST Gateway name shown in the APP on the back of the VST Gateway, and click the "Next" button.)

5. Select the wireless router you are using in your home and press the "Next" button.

6. Enter the password and click "OK" button to complete the product registration.

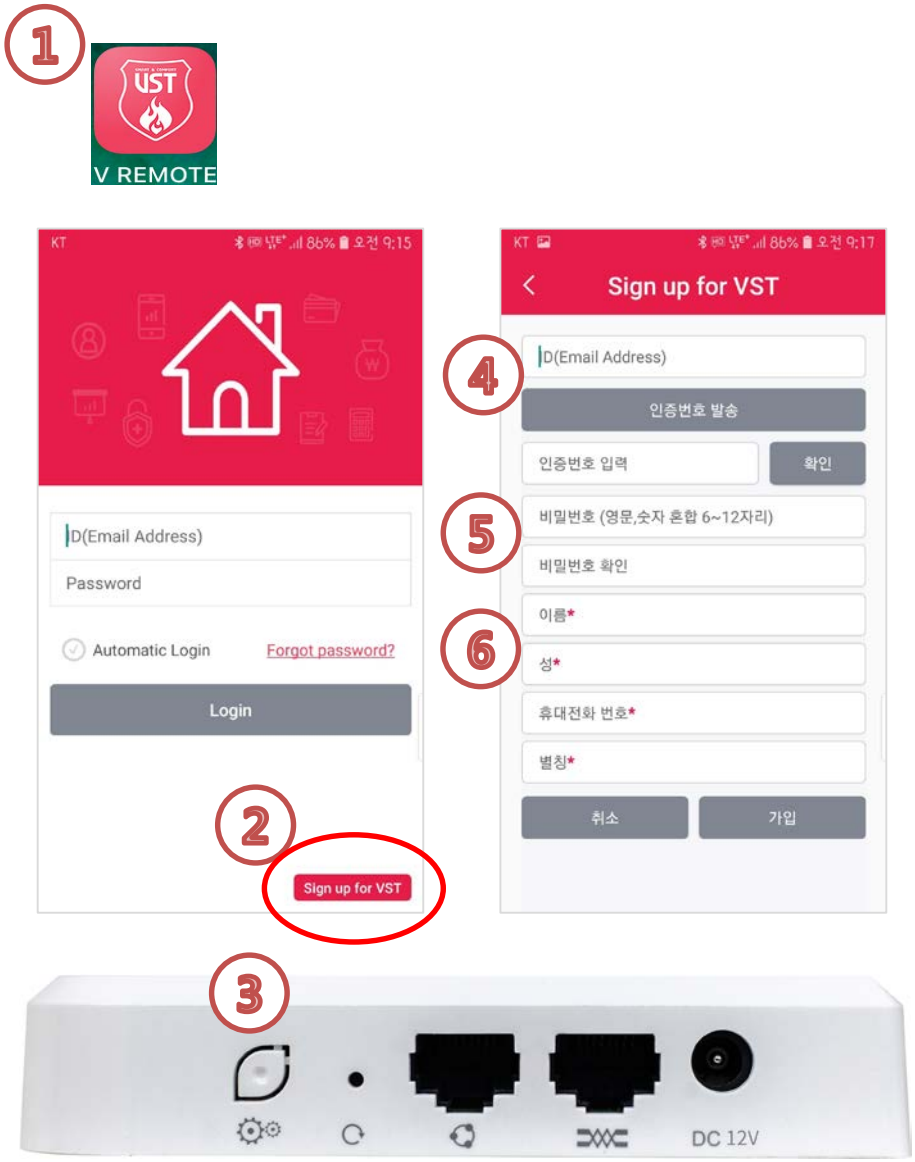
▶ If VST Gateway and Wireless Router are not displayed on the product registration screen, click the "Refresh" button.

▶ If the registration fails, please re-register in the order described in the user's manual or set the password of the wireless router.

▶ If Android OS version is below 6.0, it may not work properly.

▶ Wireless network may not be connected if wireless environment is poor.

4. Linking iOS Application and VST Gateway



No.	Description
1	From the APP Store, You can search and download “VST” or “V remote”. (APP works properly above iOS version 8.0. It may not normally operate below version.)
2	Execute the APP and register it.(Please refer to the back side for details.) When you are finished signing up, go to the product registration screen.
3	In VST Gateway, press "Set" button once to enter AP mode. (If the Power LED lights red rapidly, it is AP mode.)
4	Please sign up with your favorite email. To proceed with your identity verification process, An authentication number will be emailed.
5	Set a password by combining alphanumeric characters. (6 ~ 12 digit number). Enter the same password again.
6	Enter your first name, last name, mobile number, and product. Press the "Join" button to complete the registration process. (The product can be changed through <Setup> → <User Management> in APP. This is to distinguish the users of the product.)

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4. Linking iOS Application and VST Gateway

▶ You can set up a VST APP and Wi-Fi network for the iOS

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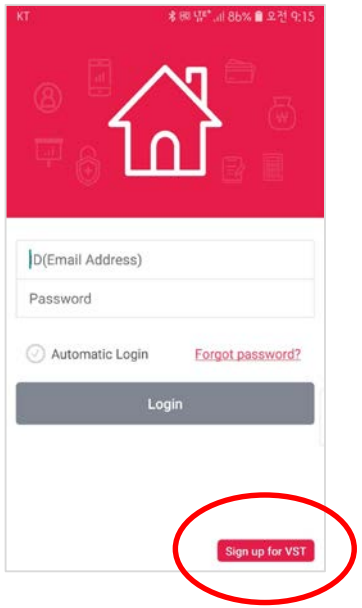
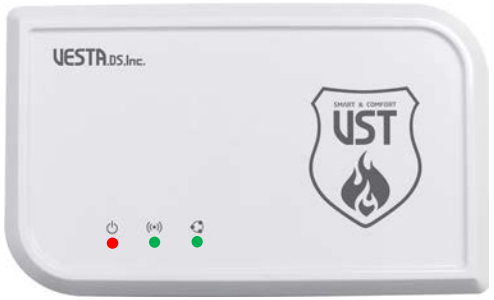
▶ VST APP provides various information about energy management system and function such as operation and control of boiler / water heater.

1. Download and install the VST APP from the APP Store on your smartphone.
2. From the login screen of APP, click the subscription button and sign up. You can then remote control and monitor the APP.



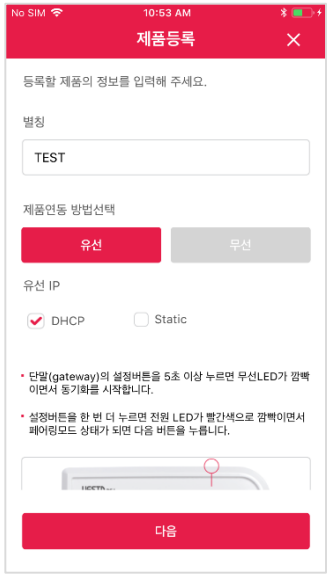
3. Please read the Terms of Use and Privacy Management carefully and click the Accept button to start signing up.
4. Enter the required information for signing up.
5. When you are finished signing up, go to the product registration screen.

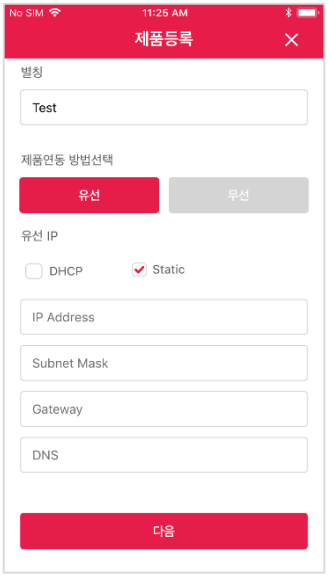


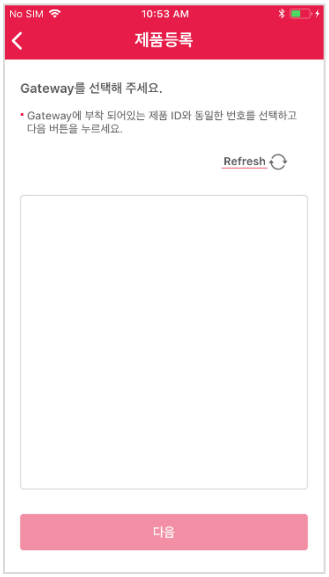
<AP Mode>

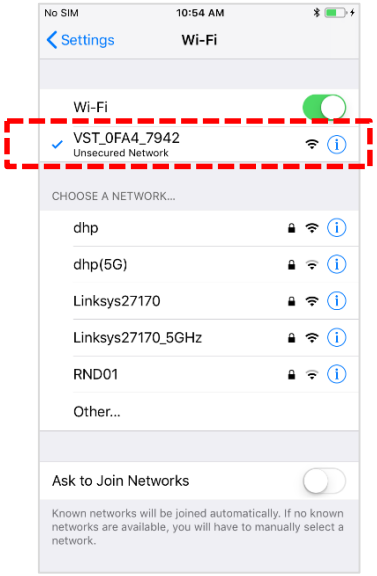
6. First of all, press the setting button on the VST Gateway for more than 5 seconds to scan the connected products.
7. When scanning is complete, press the setup button once and change to AP mode.
   (If Power LED is blinking red, AP mode is entered.)
8. Register in order from the APP registration screen.
   (Please refer to the back side for details.)

4-1. iOS Application Wired Registration









1. Enter the name of the product to be registered.
   (The name is used to distinguish between multiple VST Gateways.)

2. Select wired or wireless network for product interworking.

3. For the wired mode, you can select dynamic IP and static IP.

4. Select the desired IP option method and click the "Next" button.

5. To select the VST Gateway from the product registration screen, enter Wi-Fi in the settings of the smartphone and select the corresponding VST Gateway.
   (* If multiple VST Gateways are displayed, select the same 4 digits at the end of the product SSID and 4 digits of the VST Gateway name shown in the APP on the back of the VST Gateway, and click the "Next" button to complete the product registration.)

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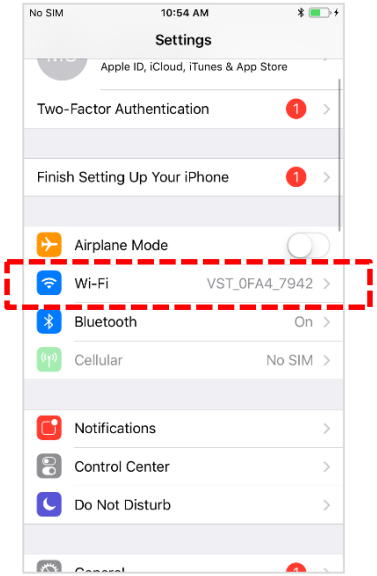
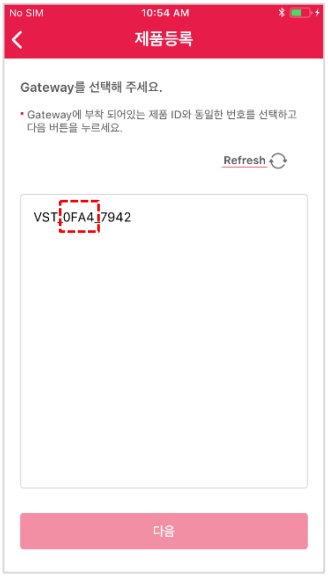
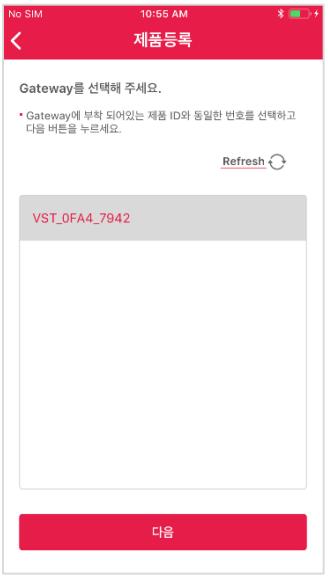
4-1. iOS Application Wired Registration







6. When the Wi-Fi setting is set to VST Gateway in the settings of the smartphone, go back to the product registration screen of APP and press the "Refresh" button to display the currently connected VST Gateway.

7. Select VST Gateway and click "Next" button to complete product registration.

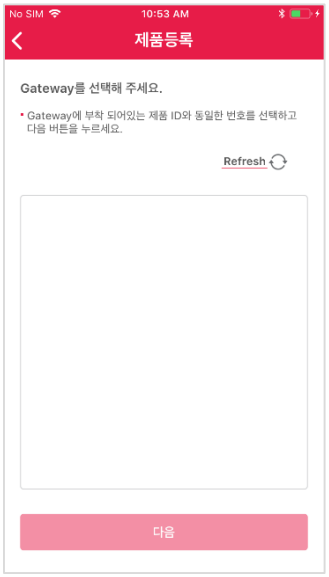
- If the registration fails, please re-register in the order described in the user's manual.
- If iOS version is below 8.0, APP may not work properly.

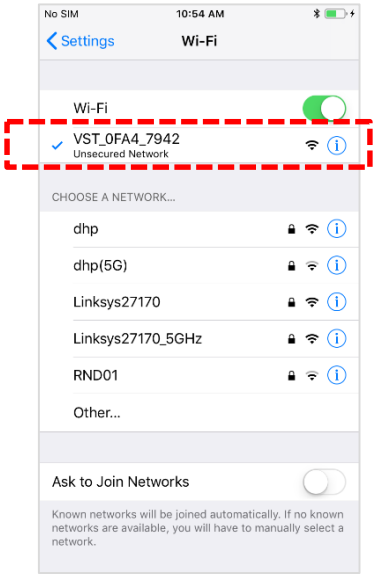
4-2. iOS Application Wireless Registration

1. Enter the name of the product to be registered. The name is used to identify multiple VST gateways.

2. You can select wired or wireless network for product interworking method.

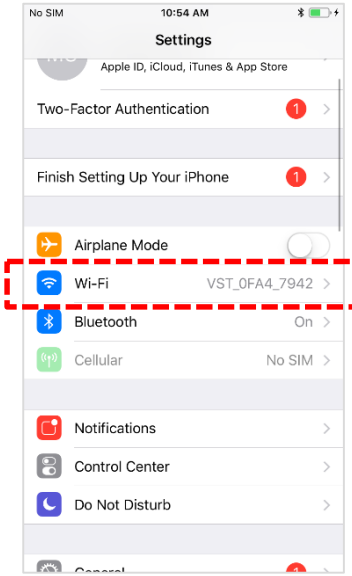
3. Select Wireless Network and click "Next" button.

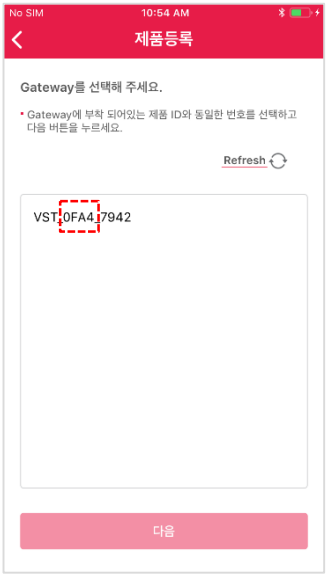


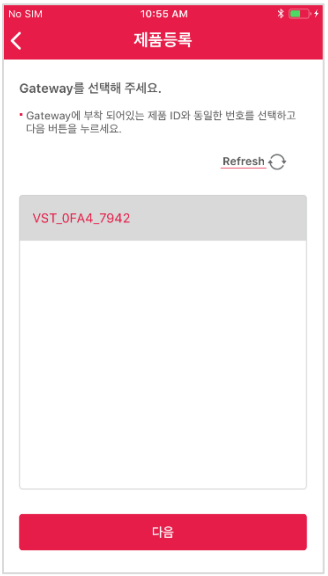


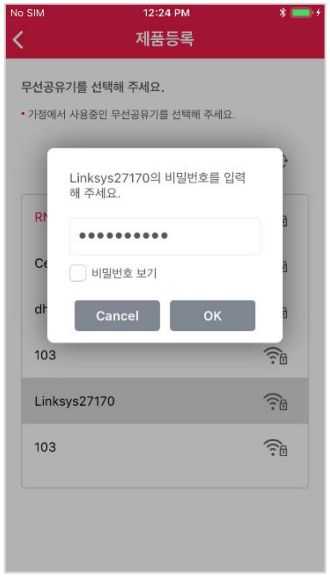
4. Select VST Gateway and click the Next button.
(* If multiple VST Gateways are displayed, select the same 4 digits at the end of the product SSID and 4 digits of the VST Gateway name shown in the APP on the back of the VST Gateway, and click the "Next" button.)

4-2. iOS Application Wireless Registration









5. When the Wi-Fi setting is set to VST Gateway in the settings of the smartphone, go back to the APP registration screen and press the "Refresh" button to display the currently connected VST Gateway.

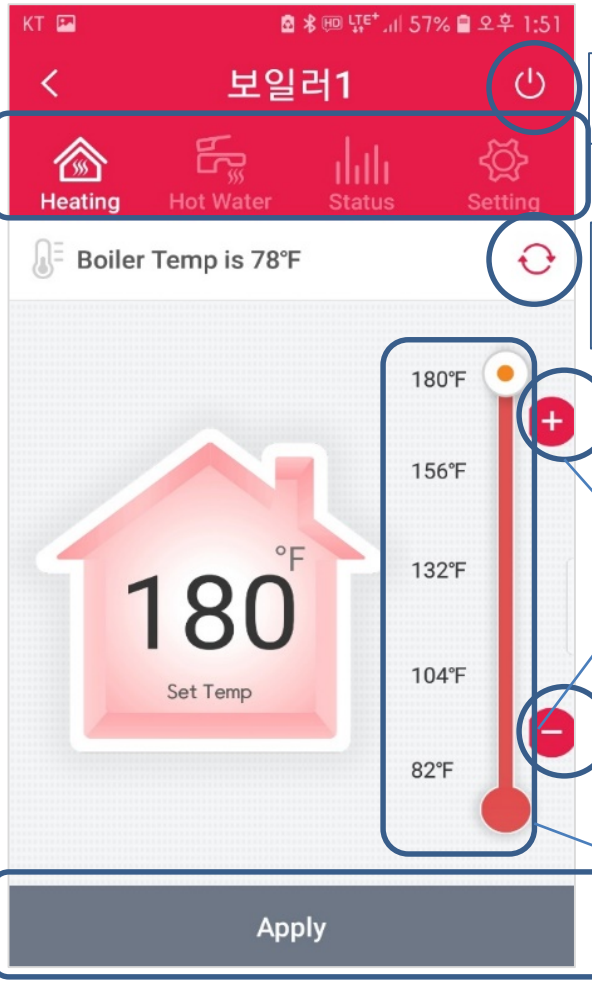
6. Select VST Gateway and click "Next" button.

7. Select the wireless router you are using in your home and press the "Next" button. Enter the password and click "OK" button to complete the product registration.

- If VST Gateway and Wireless Router are not displayed on the product registration screen, click the "Refresh" button.
- If the registration fails, please re-register in the order described in the user's manual or set the password of the wireless router.
- If iOS version is below 8.0, it may not work properly.
- Wireless network may not be connected if wireless environment is poor.

5. Detailed description of APP

◆ VRB, VRC Model



"**Power**" button :
Power ON / OFF function.

"**Refresh**" button :
Indicates current heating water temperature.

"**Heating**" button :
Go to heating setting temperature change screen.

"**Hot water**" button :
Go to the hot water setting temperature change screen

"**Status**" button :
Go to current product status screen

"**Setting**" button :
Go to setting screen

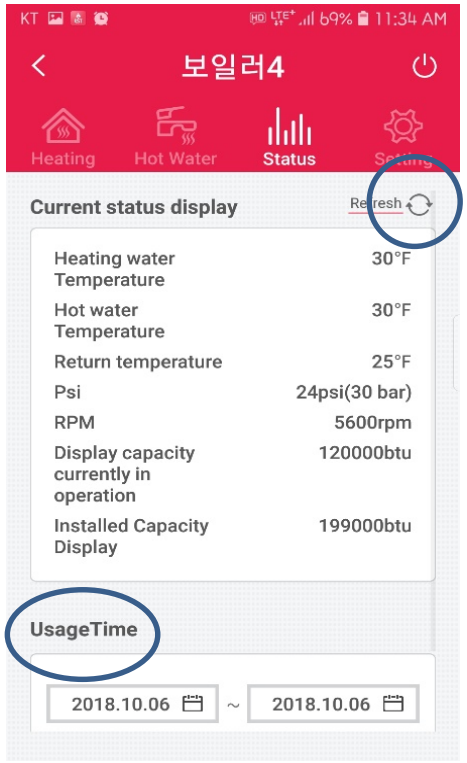
"**+**", "**-**" button :
Setting temperature can be changed step by step.

"**Control bar**" :
Change setting temperature.

"**Apply**" button : You can change the set temperature by pressing the Apply button after changing the set temperature.

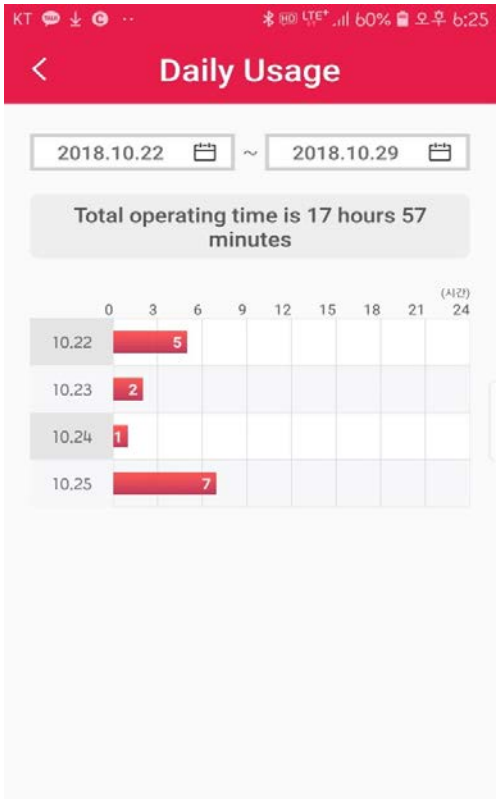
5. Detailed description of APP

◆ VRB, VRC Model



- "**Refresh**" button : The status of the current product is retrieved.

  * Current heating water temperature
  * Current hot water temperature
  * Current return temperature
  * psi : Heating water pipe pressure
  * FAN RPM
  * Display capacity currently in operation
  * Installed capacity display



- **Usage Time** :
  You can check the uptime by searching by date.

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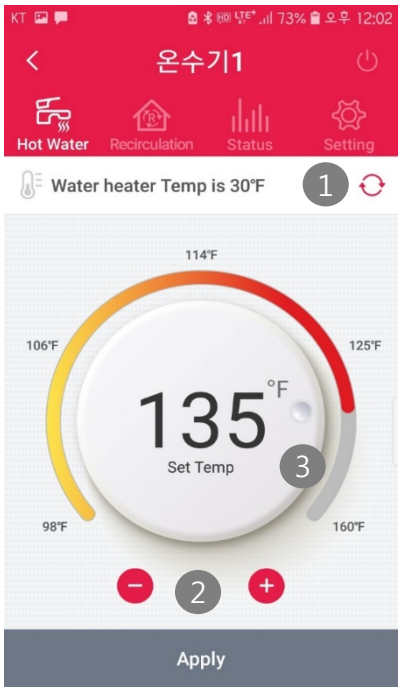
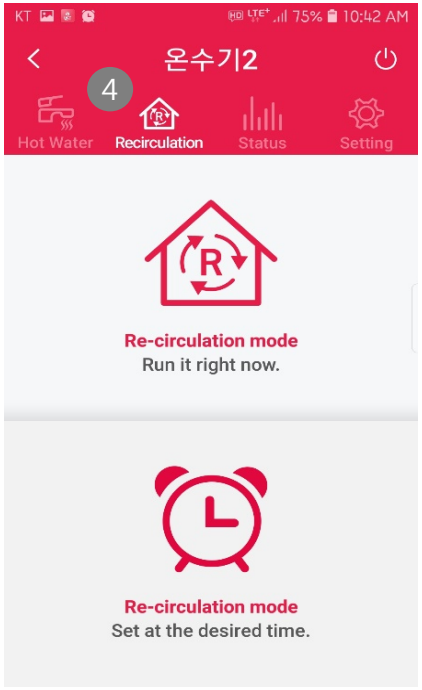
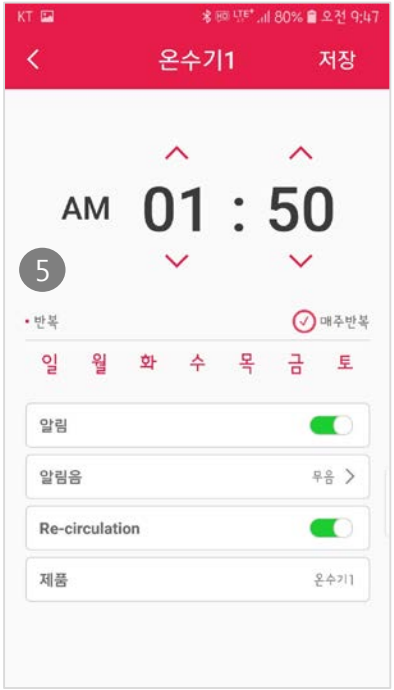
5. Detailed description of APP

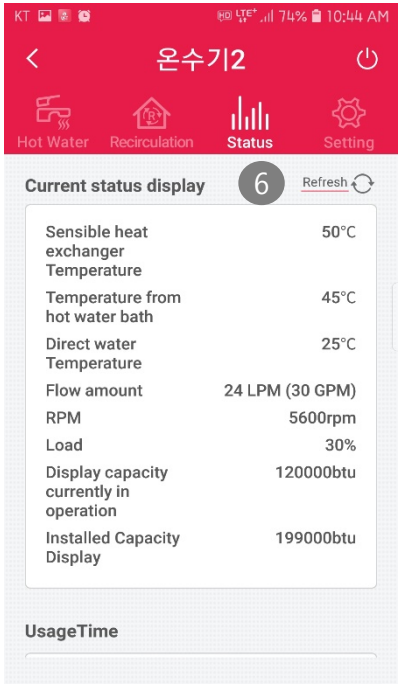
◆ VRS, VRP, VH Model

1. "**Refresh**" button : Indicates current water heater temperature.
2. "**+**", "**-**" button : Setting temperature can be changed step by step.
3. "**Central rotary**" button : Change setting temperature.
4. "**Recirculation**" button : External circulation function. (VRP model only.)
5. "**Notice**" function : Repeat every week, Ability to select alert tone, R-mode Notification setting selection button, Notification On / Off selection button
6. **"Refresh"** button" : Represents all current status information.







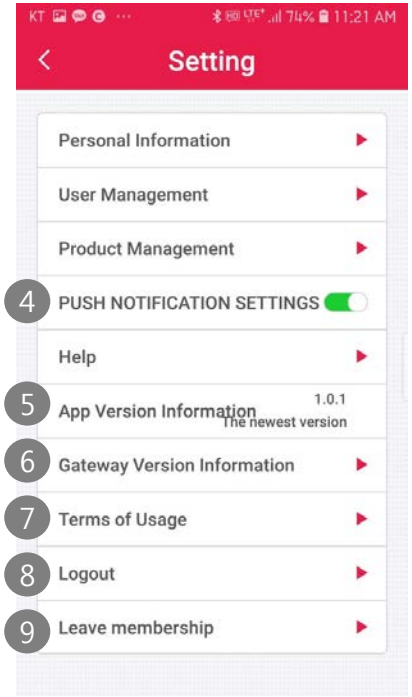


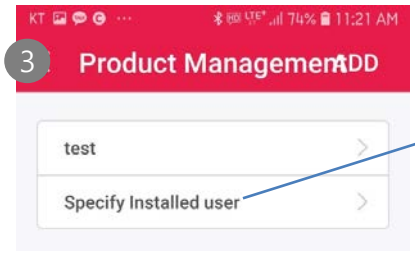
대성셀틱에너시스

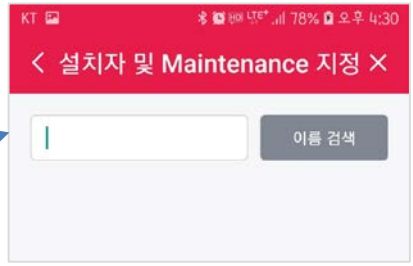
5. Detailed description of APP

◆ Setting Screen

- The configuration screens of all products are as follows.







① Personal Information :

Setting the ID, Nickname, Password, Mobile number.

② User Management :

Ability to add users and control them as family members

(*You can use the product without further interworking by inputting the other party's mail (ID) and Nickname.)

③ Product Management :

Add product linkage according to the number of households used.

< Manageable features>

- Specifying the installer : When the installer is searched and specified, the specified installer can check the current status of the product and the error history.

④ PUSH NOTIFICATION SETTINGS :

You can turn on and off push notifications on your phone.

⑤ APP Version Information :

Check app version (check for latest update)

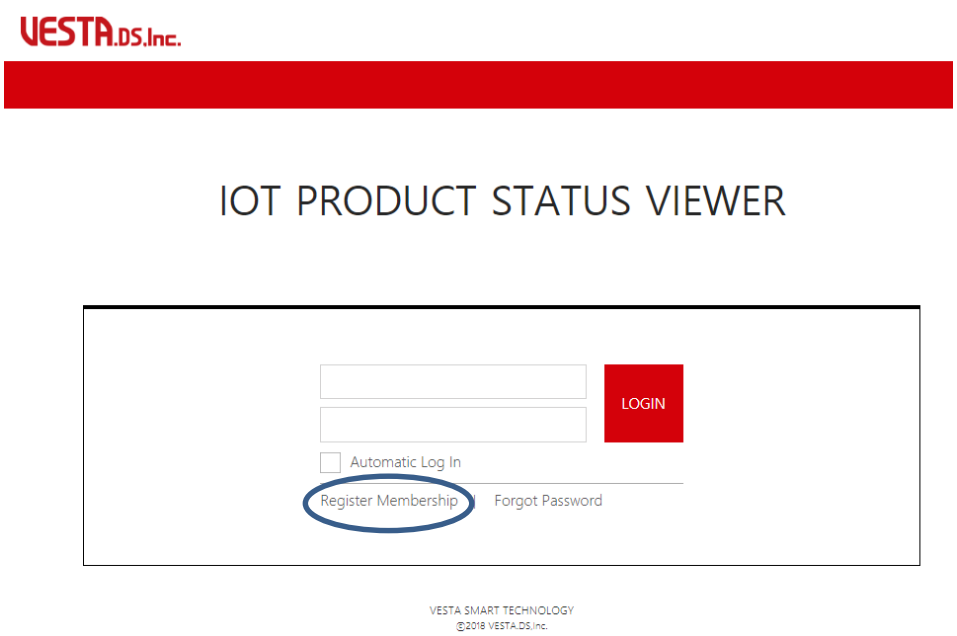
⑥ Gateway Version Information:

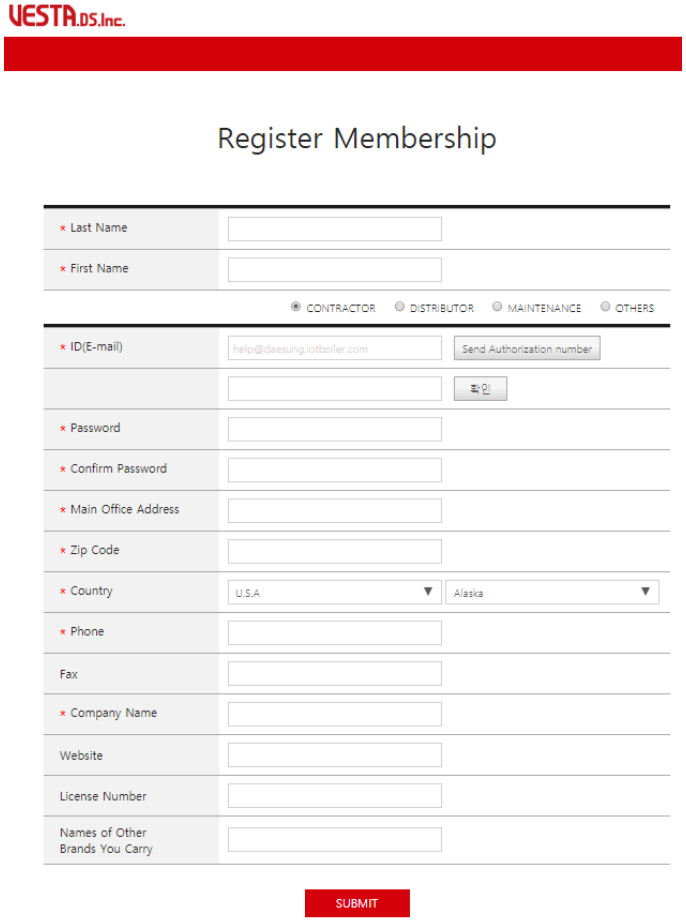
Check program version (check for latest update)

⑦ Terms of Usage / ⑧ Logout / ⑨ Leave membership

6. Managing Installer Web Pages

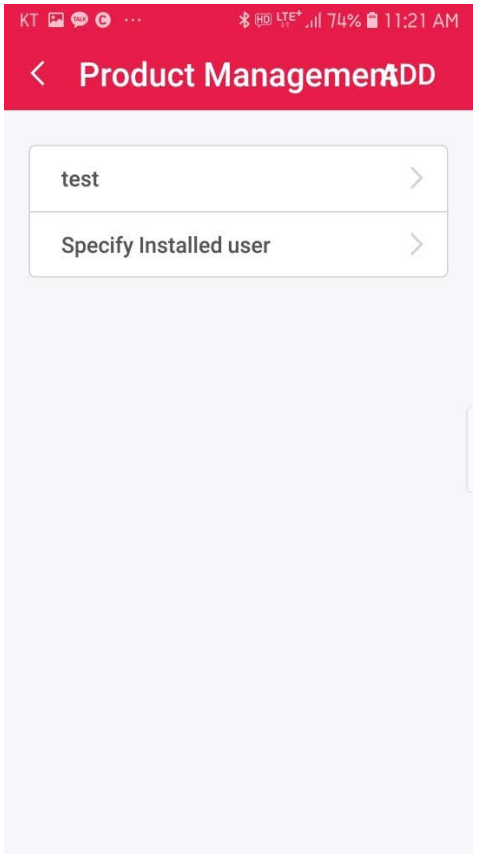
1. The installer needs to sign up for the web page in advance.
   https://www.iotvestahws.com:19443/vesta_web/webapp/views/html/login/login.html <Only for Chrome>

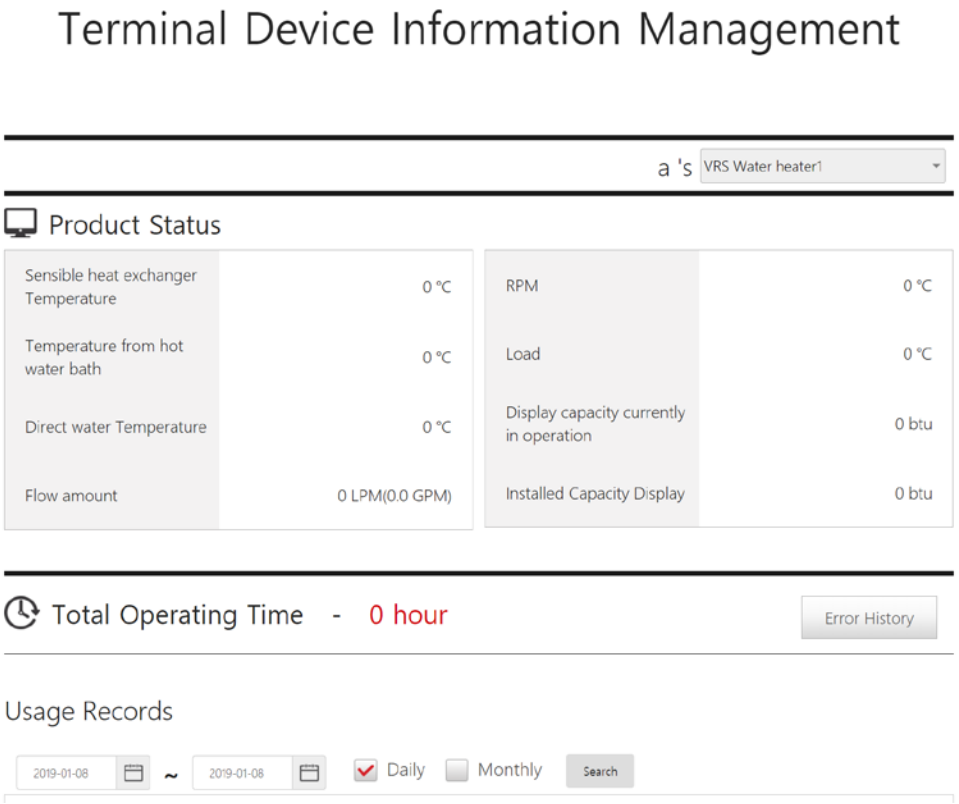




6. Managing Installer Web Pages

2. You can check the status of the installed product by granting permission from APP after installation. (Product Management> Specify Installed user> Search> Add Administrator)





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7. Trouble Shootings

Situation	Check List	Corrective Measure
All LEDs are off.	▶Check if breaker is down. ▶Ensure that the rear adapter power cord is connected properly.	▶ Raise breaker / connect power properly ▶ If there is any problem after checking, replace the product.
Sever connection LED is off or blinking in red.	▶ Make sure that the LAN cable is securely plugged into the LAN port of the router and the VST Gateway. ▶ Make sure your router is properly connected.	▶ Connect LAN line correctly, or replace LAN line. ▶ Connect the power to the router properly.
Sever connection LED is blinking in orange.	▶ Check if the installed router is connected normally. ▶ Make sure that the router you are connected to is dynamic IP.	▶ Consult with internet repair. ▶ If the problem still persists after checking, contact Customer Center to check the status of network connection.
Power LED is blinking in red.	▶ Make sure add device mode ▶ Make sure that the device is been updating.	▶ Press Set button to change to normal mode. ▶ The update process takes up to 5 minutes, so wait until the end ▶ If there is any problem after checking, replace the product.

7. Trouble Shootings

Situation	Corrective Measure
Can not connect the VST Gateway via wireless Wi-Fi.	▶ Place VST Gateway and home router as close as possible. ▶ Due to network environment issues, the VST Gateway and Router may fail to authenticate after being connected. - Connect the VST Gateway to the router via LAN cable. (Wire registration) - Check the WLAN security settings of the router. - Press the Reset button on the VST Gateway once to reset and try again.
No available router found.	▶ Make sure the router is working properly. ▶ Make sure that the SSID and password of the router are set correctly.
Can not connect to boiler or water heater or check status information.	▶ The server connection LED lights up green when the VST Gateway and the boiler / water heater are normally communicating with the server. ▶ Check the connection of the RS-485 cable to the VST Gateway and make sure that the settings are set correctly. ▶ Ensure that the RS-485 cable and LAN cable are connected to the correct port.

8. Product Specifications

Processor	Mediatek RT5350F (300MHz, 32Bit CPU)
Memory	DRAM 32MB, Flash memory 16MB
Wired network	1 Port, 10/100Mbps WAN (Automatic cable detection function)
Wireless network	2.4GHz, IEEE Std. 802.11 b/g/n & 433MHz
Power Consumption	Less than 2W
Operating temperature	0~45℃
Power	External adapter (DC 12V, 1A)

9. Limited Warranty VESTA.DS.Inc

▶ VST products are covered by a limited warranty. The next warranty begins on the original installation date. The original installation date should be provided to VST and, if so requested, the VST should prove the original installation date. If the product is installed in a new location, the start date for the end user to claim ownership of the property should be specified.

Period of Coverage	
All other parts and components	**3 years**

Warranty claim procedures

▶ For warranty repairs, the end user or homeowner should contact the original installer of the VST product. If you are unable to identify the original installer, contact the end user or homeowner at VST's Technical Management Department at (800) 761-0053. In addition, proof of purchase is required for warranty repair.

Warranty Service

▶ Optionally, VST will replace defective parts in accordance with the terms of this Limited Warranty during normal use and service failures during the warranty period specified above. Replacement parts should be elements of the original f factory parts of the VST. VST alone can replace the product with new or refurbished products of equivalent quality and design. Replacement parts or products are warranted only for the expiration portion of the original warranty period of the original part. The labor costs required to complete the warranty service should be approved in advance by VST and subject to VST's approved work allowance schedule.