

152\*216

www.os114.com

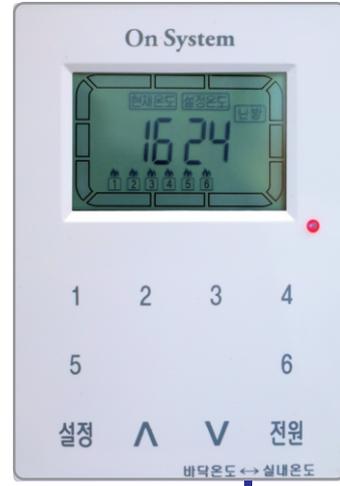


(510) 381-2024

# Floor Heating Controller

Floor Heating Controller

Installation & User Guide



ON 온시스템 주식회사 온 시스템  
Corporation On System

- ▶ Please read the product installation and user manual carefully before use.
- ▶ Product specifications, appearance, and regulations may change without prior notice for product improvement.
- ▶ The illustrations in this manual may differ from the actual product you have purchased.

## Contents

- 1** Product Components and Names of Each Part
- 2** Installation Guide
  - Wiring
  - Installing General and Embedded Wiring
  - Installing the Controller and Adjuster
  - Connecting and Securing the Controller
  - Setting the Controller
- 3** Usage Guide
  - Selecting the Heating Method
  - Turning Heating On and Off
  - Temperature Settings
  - Using Temperature Sensors
- 4** Self-Diagnosis and Adjustment Method

■ Product Components and Names of Each Part



Central Temperature Controller SVRM-01

1. Select floor/room heating mode
2. Set heating and temperature for each room
3. Backlight function
4. Touch panel operation
5. Overall external output function
6. W x H x D – 82 x 118 x 12 mm



Individual Temperature Controller SVRS-01

1. Set heating and temperature for the designated area
2. Backlight function
3. Touch panel operation
4. W x H x D – 82 x 118 x 12 mm



Single Temperature Controller SVRM-02

1. Set floor heating temperature
2. Set heating and temperature for each room
3. Backlight function
4. Touch panel operation
5. W x H x D – 82 x 118 x 12 mm



Valve Controller SVC-08S

1. Connect up to 8 valves
2. Wireless relay output – Zone control
3. Power supply: AC 220V
4. W x H x D – 220 x 120 x 40 mm

Product configuration and the name of each part



Wireless Valve Controller SVRC-08S

1. Connect up to 8 valves
2. Wireless relay output – Zone control
3. Power supply: AC 220V
4. RF wireless communication
5. W x H x D – 220 x 120 x 40 mm



Wireless Repeater SVR-01

1. RF wireless communication
2. Power supply: AC 220V
3. Wireless relay output – Zone control
4. W x H x D – 145 x 130 x 37 mm



Valve SV-015 / 020

1. Stable insert-type application
2. Connection specifications: 15A / 20A
3. Equipped with a sensor port
4. Pressure tolerance: 6 kg/cm<sup>2</sup>, max pressure 25 cm<sup>2</sup>

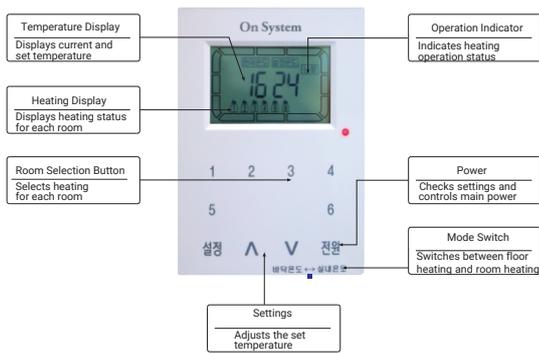


Valve Actuator SVA-24S

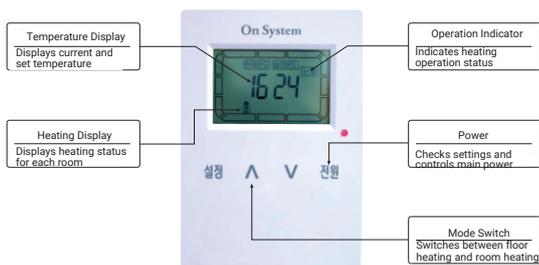
1. Durable structure with a stable DC motor
2. Precise proportional control function
3. Compatible with water temperature sensors
4. Maximum torque: 15 kg
5. W x H x D – 40 x 70 x 90 mm

■ Product Components and Names of Each Part

Single / Central Temperature Controller



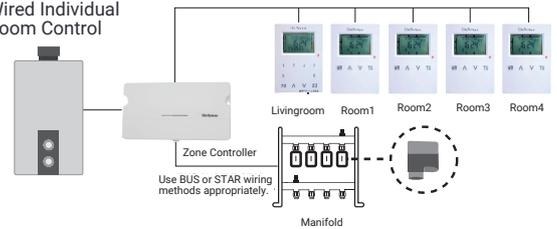
Individual Room Temperature Controller



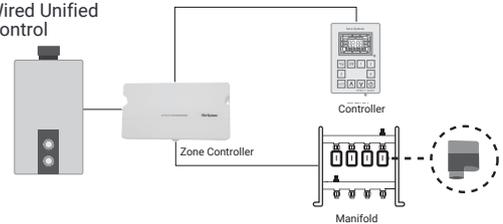
■ Installation Guide

Wiring

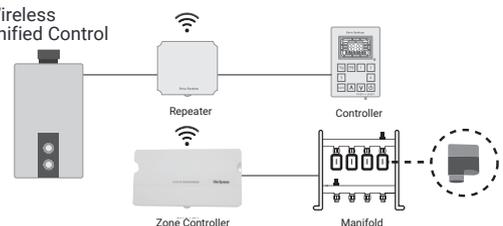
Wired Individual Room Control



Wired Unified Control

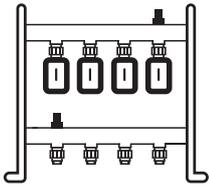


Wireless Unified Control



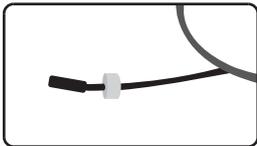
## Installation Guide

### Valve and Actuator Installation

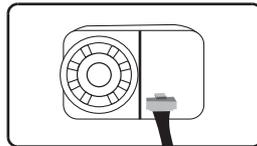


- Install dedicated valves on the manifold return header.
- Ensure that no leakage occurs.
- Union standard – HEX 12mm.

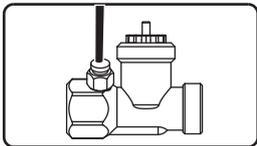
**01** Secure the pre-assembled sensor pocket holder first.



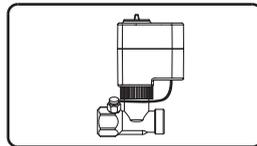
**02** Connect the plug to the bottom of the actuator.



**03** Insert the sensor into the sensor pocket, then fasten the sensor pocket holder securely.

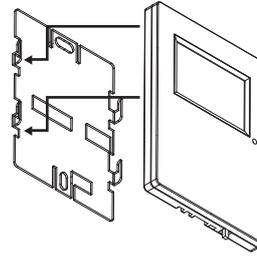


**04** Attach the actuator to the valve.



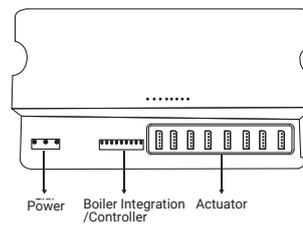
## Product installation description

### Controller Installation



- 01** Secure the bracket to the wall or junction box.
- 02** Connect the controller connection wire to the embedded wire.
- 03** Attach the controller to the bracket by sliding it downward from the top.

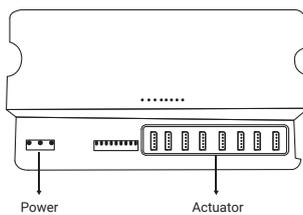
### Wired Controller Installation



- 01** Secure the controller using the mounting holes on both sides.
- 02** Connect the power cable and connectors.
- 03** Connect the actuator from the rightmost terminal of the actuator connection area.

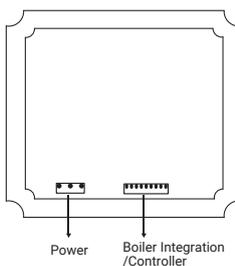
## Installation Guide

### Wireless Controller Installation



- 01** Secure the controller using the mounting holes on both sides.
- 02** Connect the power cable.
- 03** Connect the actuators starting from the rightmost terminal of the actuator connection area.

### Wireless Repeater Installation

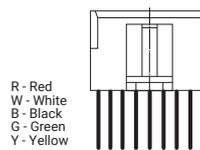


- 01** Secure the repeater using the mounting holes on both sides.
- 02** Connect the power cable and connection connectors.

## Product installation description

### Controller and Boiler Connection

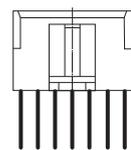
#### Valve Controller



R - Red  
W - White  
B - Black  
G - Green  
Y - Yellow

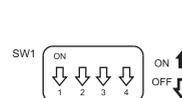
1	2	3	4	5	6	7	8	9
R	R	W	B	G			Y	Y
Hot Water Contact		Heating Contact		RS-485 Communication		Thermostat		
NO	COM	NC	NO	COM	LOW	HIGH		

#### Wireless Repeater



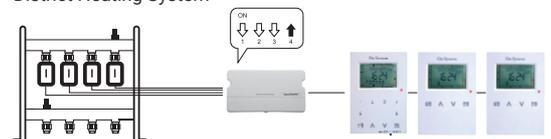
1	2	3	4	5	6	7
R	R	W	B	G	Y	Y
Hot Water Contact		Heating Contact		Thermostat		
NO	COM	NC	NO	COM		

### Heating Mode Settings Using Dip Switches



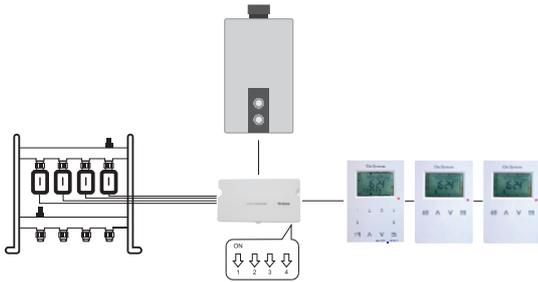
Boiler Type	Switch Configuration
Individual Heating	↓ ↓ ↓ ↓ 1 2 3 4
District Heating	↓ ↓ ↓ ↑ 1 2 3 4
Auto Interlock	↓ ↓ ↑ ↓ 1 2 3 4

### District Heating System



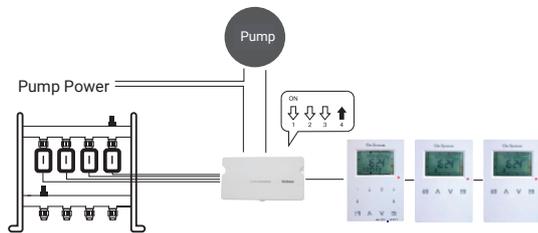
## Installation Guide

### Boiler Interlock Connection



Check the interlock connection method for each boiler manufacturer, and distinguish between A/B connections accordingly.

### Pump Interlock Connection



## Controller Setting

The controller setting description.

### Single / Central Temperature Controller

#### Setting the Number of Actuators per Room



**01** Press button 1 for 10 seconds.



**02** The room number icon and the corresponding number of actuators will be displayed at the bottom of the screen.



**03** Use the up/down buttons and the room number button to set the number of actuators for each room. After setting, press the power button to complete the setup.

## Controller Setting

### Individual Room Temperature Controller

#### Room Number Setting



**01** Press and hold the up and down buttons simultaneously for 5 seconds.



**02** The room number icon will be displayed at the bottom of the screen.



**03** Use the up/down buttons to set the controller number, then press the power button to complete the setup.

## Usage Guide

### Selecting Heating Mode

You can choose between floor heating and room temperature control to match user preferences.

- 01** Use the switch located at the bottom of the controller to select the heating mode.
- 02** Once the selection is complete, the system will automatically reconfigure itself.



## Turning Heating On and Off

### Single / Central Temperature Controller



- 01** Press the room number button for the room you want to heat, then use the setting button to adjust the desired temperature.
- 02** After setting, if there is no operation for 5 seconds or if you press the power button, the setting will be saved. A fire icon will appear for rooms where heating is enabled.
- 03** To turn off the heating, press the room's button twice in succession, and the heating for that room will be turned off.

### Individual Room Temperature Controller



- 01** Press the power button, check the heating activation indicator, and then use the setting button to adjust the desired temperature.
- 02** If there is no operation for 5 seconds after setting, the setting will be saved automatically.

## Temperature Setting

### Single / Central Temperature Controller

For floor heating settings, the recommended temperatures are:  
 Winter: 30°C | Spring/Fall: 26°C | Summer: 24°C  
 Adjusting the temperature according to the environment can create a more comfortable heating setting.

#### Living Room Temperature Setting



- 01** When heating is turned on, use the up/down buttons to adjust the temperature.
- 02** After setting the temperature, press the power button to complete the setup.

#### Setting Individual Room Temperature from the Living Room Controller



- 01** Press the room number button for the desired room, then use the up/down buttons to adjust the temperature.
- 02** After completing the setting, press the setting button to confirm.

#### Individual Room Temperature Controller



- 01** When heating is turned on, use the up/down buttons to adjust the temperature.
- 02** After setting the temperature, press the power button to complete the setup.

## Using the Hot Water Function

The hot water function can be activated depending on the boiler manufacturer's interlock method.

Please connect the hot water interlock wires of the controller and repeater to the boiler according to the manufacturer's interlock method.



- 01** Press and hold the function/power button for 5 seconds to enter the hot water function selection mode.



- 02** Use the 1 button to set the hot water function to ON/OFF, then press the power button to complete the setup.



- 03** Press the 6 button to turn on the hot water function.
  - Once activated, a hot water icon will be displayed.
  - The function will automatically turn off if the 6 button is pressed again or after 3 hours.

## Self-Diagnosis and Troubleshooting

Error Code & Symptoms	Issue Description	Inspection Items
E1	Motor Disconnection	Check the actuator and controller wiring connections.
		Verify actuator operation status.
		Replace the actuator if necessary.
E3	Sensor Disconnection	Check the actuator and controller wiring connections.
		Inspect the sensor pocket installation status.
		Replace the wiring if necessary.
Heating Failure	User	Ensure the heating system is turned ON/OFF properly. Check the heating temperature settings.
	Actuator	Check the open status - LED lamp should be blinking.
	Boiler	Verify boiler power status.
		Check boiler heating settings. Inspect boiler error messages.
Overheating	User	Check the heating temperature settings.
	Actuator	Check the closed status - LED lamp should be off.
	Boiler	Verify boiler operation status.

If further inspection is required after reviewing the above, please contact the customer service center or the installation provider.