

## 1. Safety Precautions

### [Warning]

Failure to comply with the following instructions may result in death or serious injury to the user or failure of the product.

- Do not disassemble, repair, or modify the product without the assistance of an authorized technician.
- Do not use a damaged power cord or plug, or an insecure power outlet.
- Do not touch the product with wet hands.
- Keep the surface of the product free of liquids and metal objects.
- Do not store the product at temperatures of 50°C or higher, expose the product to fire or heat the product in a microwave oven.
- Do not let children or pets suck or bite the product.

### [Caution]

Failure to comply with the following instructions may result in injury to the user or failure/malfunction of the product.

- Do not apply a strong impact to the product, or make a hole with a sharp object.
- The product can be used in a working temperature of -10 to 60°C and a storage temperature of -15 to 50°C.
- Do not clean with any liquid that may damage the exterior of the product.
- Cleaning the product with alcohol, solvent, liquid or wax that contains surfactant, benzene, thinner, mosquitocide, air freshener, lubricant, cleaning agents, or other chemicals that may cause discoloration or cracks in the exterior of the product.

## 2. Things to Know before Usage

- Use the product only in the country where it was purchased. Performance and quality of the product is not guaranteed in other countries.

- Read the instructions completely to use the product in a proper manner.
- The instructions contain images to assist in understanding the product. They may vary from the actual product you are using.
- Due to continual performance improvements, the appearance and specifications of the product are subject to change without notice.
- The wireless communication system can be subject to radio interference or no-signal areas.
- Keyco air does not require use of a specific smartphone or carrier. The mobile app is optimized for Google Android 5.0 and higher and Apple iOS 9.0 and higher.
- If software updates are required, update the unit while it is connected to a power outlet.
- This wireless device may be subject to radio interference. It is not suitable for gas leakage, fire detection, and other safety-related services. The VOC indication is not a precisely-measured value.

■ Notice:

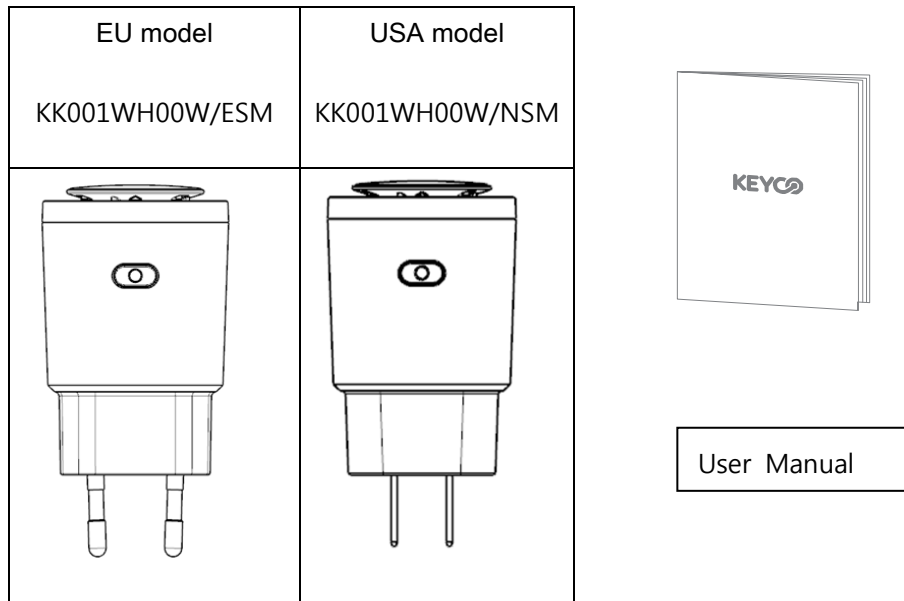
What are Volatile Organic Compounds (VOCs)? This term is used to indicate hydrocarbon compounds that volatilize in the air to generate odors or ozone (including petrochemical products and organic solvents such as benzene, formaldehyde, toluene, xylene, ethylene, styrene, and acetaldehyde). These carcinogenic and toxic chemicals can cause neurological disorders through contact with the skin or inhalation into the respiratory system.

Detailed use can be found in the manual in the Keyco air app or at the mykeyco site.

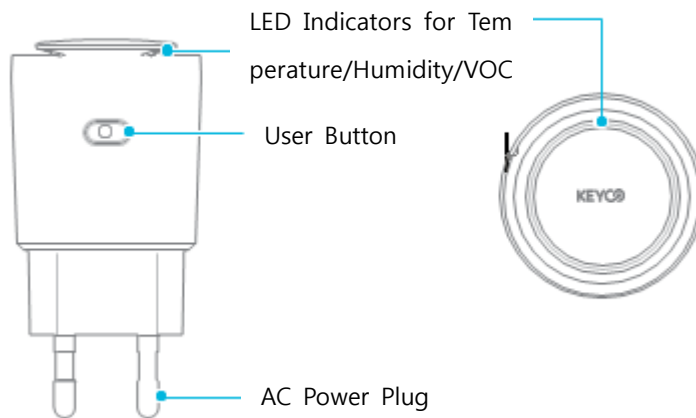
Keyco air app ► Menu button ► Press User Manual

[www.mykeyco.com](http://www.mykeyco.com)

### 3. Product Configuration



### 4. Names of each part



- Unused port: Micro USB port

### 5. Functions

#### **Temperature, humidity, and VOC data detection and monitoring.**

- Detects the temperature, humidity, and VOC concentration at the location where the Keyco air is installed.
- Transfers the data to the server through wireless communication.

- Provides monitoring with a dedicated smartphone app.

**Provides a sound alarm and a push message through the smartphone app when abnormality is detected.**

- For temperatures of 40°C or more, or 5°C or less.
- For abnormal sharp temperature changes in an indoor environment.
- For abnormal sharp VOC changes in an indoor environment.
- For cooking fires (burning) in an indoor environment.

■ Notice

- If the product is disassembled, reassembled, or damaged without the assistance of an authorized technician, the functions may not work properly.
- The notification for cooking fires may be incorrectly or not detected according to the installation area, position of the device, or type of food.
- The function upgrade and the user manual of the product can be subject to change without prior notice due to the manufacturer's circumstances.

6. How to install the Keyco air app

You must install the Keyco air app to use Keyco Kitchen.

[1] Access the Play store on your smartphone.

For iPhone users, access the App Store.

[2] Enter '키코 에어' or 'KEYCO air' into the search box.

[3] Select Keyco air from the list and tap Install.

7. How to Connect to your Smartphone

You must register the product with the smartphone app to conduct monitoring using Keyco air.

[1] Run the installed app and complete the subscription process.

[2] After logging in, select 'Register Keyco air' in the Device Registration screen.

[3] Follow the guide on the screen to register Keyco air.

#### 8. How to Calibrate the VOCs Sensor

Ventilate the room to have a clean indoor environment and press the button briefly to adjust to zero.

#### ■ Notice

The first 2–3 days of purchase is the stabilization period for the VOCs sensor.

The environmental condition and the notification may vary.

#### 9. Colors and Sound Alarm Conditions of LED Indicator

State	LED Colors and Sound Alarm
Air quality is Fresh:	Steady Blue LED.
Air quality is Moderate:	Steady Purple LED.
Air quality is Poor:	Steady red LED, mobile app notification.
Air quality is Very Poor:	Blinking red LED, mobile app notification.
40°C or higher temperature abnormal sharp temperature change	Blinking red LED, sound alarm, mobile app notification.
5°C or lower temperature abnormal sharp VOCs change	Mobile app notification.
Cooking fires (burning)	Blinking red and purple LED, mobile app notification.

#### 10. Product Specifications

Product name	Keyco air
Controller	ARM Cortex-M4 32bit Microcontroller
Wireless communication	801.11b/g/n(2.4GHz Wi-Fi only) 2.4GHz Bluetooth Smart 4.2

Antenna	Wi-Fi & Bluetooth Internal Antenna
LED and button	3-color LED, 1 Button, 1 Buzzer
Sensor	Temperature, Humidity, VOCs
Power	AC 100-240V, 50-60Hz, 0.15A
Frequency range	2412MHz~2472MHz (Wi-Fi) 2402~2480MHz (Bluetooth Smart)
Output	248mA (Wi-Fi), 7.5mA (Bluetooth Smart)

■ Notice

Due to continual performance improvements, the design and specifications of the product are subject to change without notice.

11. Product Certification

- Equipment name (model name): Specific low power wireless device (wireless device for wireless data communication) (KK001WH00W/ESM), (KK001WH00W/NSM)
- Certification no.: 2AFWN-KK001WH00W(FCC)
- Certified company name: SOLUM Co., Ltd.
- Manufacturer / Country of Manufacture: SOLUM Co., Ltd. / China

12. Things to Check before Reporting Failure

If a failure is suspected, visit the Keyco air blog and check for the proper action to take before reporting failure.

- Site address: [www.mykeyco.com](http://www.mykeyco.com)

13. Product Warranty

[1] We confirm that this product is a product of SoluM Co., Ltd.

[2] This product is shipped after the approval of the model, internal quality control and

inspection.

[3] SoluM Co., Ltd. complies with the consumer damage compensation rules by item notified by the Ministry of Strategy and Finance.

[4] The warranty period of this product is 1 year. If defects or failure of the product occurs within 1 year, it will be repaired or replaced free of charge, unless the defects or failure have occurred due to the negligence of the user.

[5] A/S is not free of charge in the cases below, even within the warranty period.

- Failure or damage due to the deliberate actions, mishandling, or negligence (dropping, impact, breakage, submergence, etc.) of the user
- Failure or damage due to disassembly, repair or modification by the user
- Failure or damage due to usage of the product for purposes other than the original function
- Failure or damage due to usage of additional items not provided by the manufacturer
- Failure or damage due to repair by a third party other than the one specified by the manufacturer
- Failure or damage due to uncontrollable environmental factors (earthquake, fire, flood, lighting, etc.)
- We recommend using this product at least 20 cm away from the body.

#### ■ Notice

When requesting an A/S, always present the warranty. Pay attention to where you store the warranty, because it cannot be reissued. Make sure to register this product with the Keyco Kitchen app when you buy the product, then it can be searched for even if you lost the warranty.

## Warranty

<b>Product name</b>		<b>Model name</b>	
<b>Date of purchase</b>		<b>E-mail</b>	
<b>Serial no.</b>		<b>Customer name</b>	
<b>Location of purchase</b>		<b>Contact information</b>	
<b>Address</b>			

## Compensation criteria for consumers' damages

Type of consumers' damage		Compensation details	
		Within the warranty period	After the warranty period
Normal Use	In the case of a defect	Repair is free of charge	Repair is not free of charge
	Same defect occurs twice	Repair is free of charge	Repair is not free of charge
	Same defect occurs three times or more	Provide a replacement for the product	Repair is not free of charge
Deliberate actions or negligence of	Failure due to a customer's mistake	Repair is not free of charge	Repair is not free of charge



customer	Failure or damage due to disassembly, repair or modification by the user	Repair is not free of charge	Repair is not free of charge
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■ Certification

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

■ FCC Information to User

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 one 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.

- Caution

THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

- IMPORTANT NOTE : FCC RF Radiation Exposure Statement

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

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.