

# WIRELESS LAN INTERFACE USER'S MANUAL FOR THE MAIN UNIT

[EN] RKZ012A106C

## Safety precautions

Please read these safety precautions carefully before using this product, and use the product properly.

- Be sure to follow these precautions because they describe important safety-related information.

### **WARNING**

Failure to follow warnings may cause serious consequences, such as death or severe injury.

### **CAUTION**

Failure to follow cautions may cause injury and/or property damage. Depending on the situation, failure to follow cautions may lead to serious consequences.

- The “graphic symbols” in this document have the following meanings.



Prohibited.



Be sure to follow instructions.

 **WARNING**



- Do not disassemble, modify, or repair this product.  
(Improper work may cause a fire, electrical shock, or injury.)
- Do not immerse the wireless LAN interface in water, splash water on it, or handle it with wet hands.  
(Improper handling may cause an electric shock or fire.)
- The contents of the application “Smart M-Air” may change due to version upgrade.
- Do not use the product at a location where the use of wireless devices is prohibited such as in a hospital, etc.  
(Radio waves from this product may affect medical electrical devices, resulting in an accident due to malfunction.)
- Do not turn ON the wireless LAN interface function near a person wearing a pacemaker or defibrillator or at a place where they may be used.  
(Such improper operation may affect the operation of the pacemaker, resulting in an accident.)
- Do not turn ON the wireless LAN interface function near automatic control equipment such as an automatic door or fire-alarm device.  
(Such improper installation may cause an accident due to malfunction of equipment.)



- For installation of the product, request the sales outlet for the product or an authorised dealer.  
(Improper work may cause an electric shock or fire.)
- If abnormal smell, abnormal sound, overheating, or smoke occurs, immediately unplug the air conditioner or turn OFF the breaker.  
(Failure to do so may cause a fire or failure.)  
→ Request inspection from the sales outlet for the product.
- If the wireless LAN interface is dropped or broken, unplug the air conditioner or turn OFF the breaker.  
(Failure to do so may cause a fire or electrical shock.)  
→ Request inspection from the sales outlet for the product.

 **CAUTION**



- Do not install the product in a place where flammable gas may leak. (Improper installation may cause ignition.)
- Do not install the product in a place within the reach of infants. (Improper installation may cause injury.)
- Do not get on an unstable step when setting or maintaining the wireless LAN interface. (Such an activity may cause injury.)



- Unplug the air conditioner when it will not be used for a long period of time. (Failure to do so may cause heat generation or ignition due to dust.)
- Do not drop or bump the product. Also, do not apply strong pressure to the product. (Improper use may cause malfunction or failure.)
- Depending on the communication state, the operation content set by a smartphone may not be communicated to the air conditioner. Be sure to confirm the content on the main screen displayed on the application.

## **WARNING**

### **Note for Using This Product**

When operating the air conditioner away from home, carefully confirm the state of the air conditioner, its periphery, and people in the room beforehand to ensure safety. Failure to do so may cause death, serious injury, or property damage in some cases.

#### ■ **Check the following points in advance (while at home).**

- The air conditioner must be free from any abnormality. There is no adverse effect on persons and the room even when there is a change in wind speed, etc.  
(For example, no objects are easily blown away. Such objects may fall due to wind, resulting in a fire, injury, or property damage.)
- Thoroughly grasp the setting state such as a timer reservation set by another person.  
(Unexpected operation or stopping may impact health, or may affect animals and plants.)

#### ■ **Check the following points before operation and while in operation from an outdoor location**

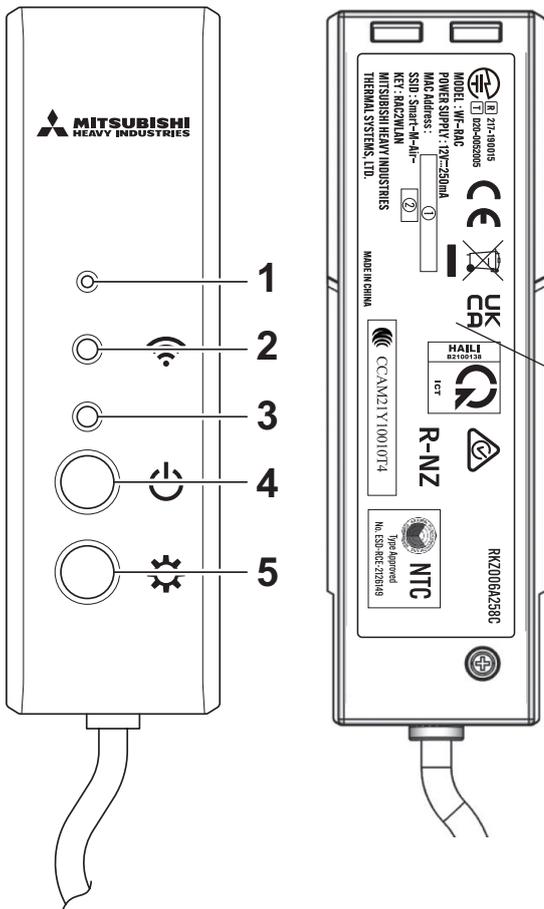
- If you know someone is in the room with the air conditioner installed, notify the person beforehand that you will operate the air conditioner from a position where you cannot see it.  
(If the person is on a step, he/she may be surprised and fall by sudden operation or stopping. Also, an abrupt change in outdoor and indoor temperatures may impact health.)
  - Temperature control and operation stopping can also be performed using the indoor remote controller.
  - Do not use the air conditioner when there are only people in the room who cannot control the temperature by themselves such as the disabled, the elderly, and infants.
- Frequently check the settings and state of operation.  
(An abrupt change in indoor and outdoor temperatures may impact health or may affect animals and plants.)
  - If the communication state is poor due to radio wave interference caused by an obstacle or microwave oven, the operation content may not be reflected.
- If an issue occurs in the air conditioner, stop operation immediately and consult the sales outlet for the product. Confirm again that the operation is stopped on the operation screen.

# Note on Wireless Communication (Radio Wave)

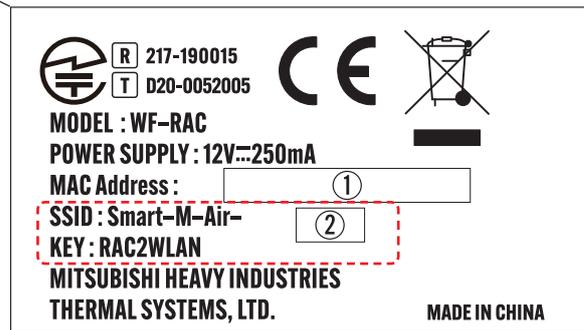
## Wireless LAN and Radio Act

- This wireless LAN interface has construction design certification. Therefore, application for the licence is not necessary.
- This product is certified to meet the technical standard as a wireless facility of a specified low-power radio station based on the Radio Act. Therefore, a radio station licence is not necessary when using this product.
- Wireless LAN may be subject to wiretapping or malicious access because it transmits and receives data using radio waves. Before using wireless LAN, thoroughly understand the risk. In addition, manage the SSID and KEY of the wireless LAN interface and wireless LAN router and also the log-in ID and password for operation away from home so as to prevent them from being known by other people. In the event that the product is operated away from home by malicious access, turn OFF the function of the wireless LAN interface.
- This product cannot be connected directly to communication lines provided by telecommunication carriers. When connecting this product to the Internet, be sure to connect it to the Internet via a router.
- If a barrier that barely transmits a radio wave (such as metal and reinforced concrete) exists between this product and a wireless LAN router, the product may not operate because it may receive radio wave noises or the radio wave reaching distance may be shortened.
- Radio waves transmitted from this product have extremely little impact on medical electrical devices. However, keep a distance of 20 cm or more from such a device (pacemaker-installed part, etc.) for safe management when using the product.
- Use of this product near a device emitting electric waves such as a microwave oven and cordless phone may affect communication via wireless LAN. If the product fails to communicate properly, or if a cordless phone fails to send/receive a call properly, be sure to use the product and the phone at least 1 metre away from each other.
- If you have any other problems, consult the sales outlet for the product.

# Names of Parts



No.	Name
1	Reset button
2	Communication LED (orange)
3	Running LED (green)
4	Power button
5	Set button



# Operations of buttons

Button	Pressing duration	Operation state
Reset button * Press this button by using something with a fine tip, such as the tip of a pen.	Short press	Reset (restart)
	3 seconds or more	Restores information in wireless LAN interface to factory-default information (initialisation).
Power button	2 seconds or more	Switch between ON and OFF of the power
Set button	Short press	Sets WPS function (simple setting function) to valid.
	2 seconds or more	Sets AP function to valid.

## LED display

Description of operation	Communication LED (orange)	Running LED (green)
Connecting with WPS function.	Connecting: OFF After connected: ON for 2 seconds	Flashing every second
Connecting in AP	Connecting: OFF After connected: ON for 2 seconds	Flashes: ON for 2 seconds and OFF for 0.5 seconds.
After starting communication with the application or server	Flashes every 0.1 seconds each time transmitting/receiving data.	ON
The power is OFF and “LED ON” of the application is OFF	OFF	
During reset (restart)	Turns ON for 10 seconds.	
At initialisation	Flashing 10 times for 10 seconds.	
Not connected to indoor unit*	The Communication LED and Running LED flash 3 times alternately for 10 seconds.	
Interface in abnormal state*	The Communication LED and Running LED flash 4 times alternately for 10 seconds.	

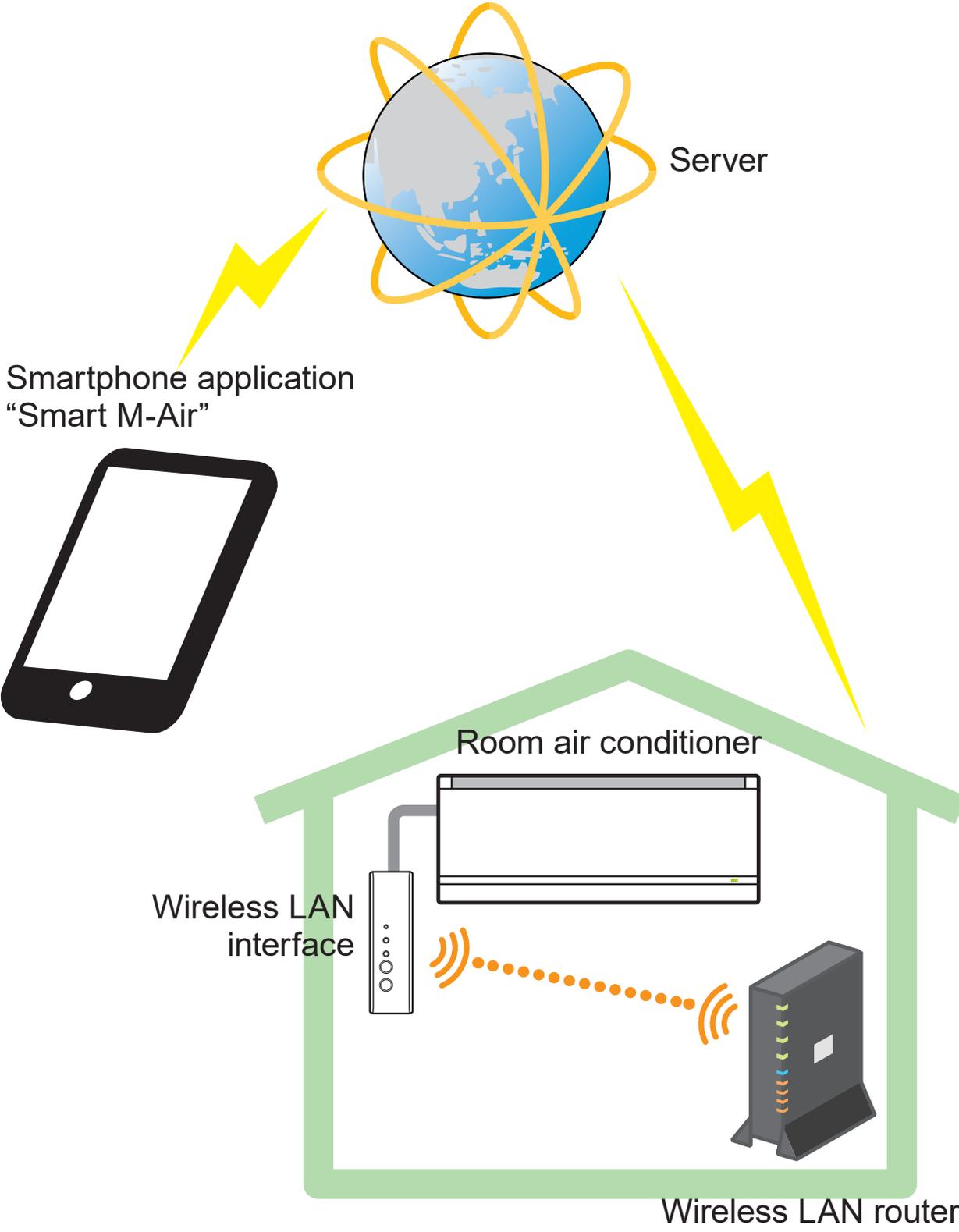
\* For details, refer to FAQ in menu of the application.

# Specifications

Power supply	DC12 V supplied from air conditioner
Power consumption	Max. 3 W
Outside dimension	110 mm (height) x 33 mm (width) x 16.5 mm (depth)
Mass (main unit)	About 80 g
Material	Casing: ABS + PC
Operation guarantee environment	Temperature 0 - 40°C, humidity 75% or less
Part name	Wireless LAN interface
Model name	WF-RAC
Cable length	1.3 m
Wireless communication method	IEEE 802.11b/g/n 2.4 GHz band
Compatible standards	2014/53/EU

\* For supported models, refer to air conditioner catalogues etc. for confirmation.

# System configuration (for remote control)



# Connecting to Network via Wireless LAN

The following procedure may partly differ depending on the model to be connected. Refer to the home page of our air conditioner products.

## Preparation before connection

Check beforehand.

Prepare the following items.

- Smartphone (tablet PC)  
Supported OS    Android™ 8 to 12  
                          iPhone 12 to 15
- Internet line and communication equipment (modem, router, ONU etc.)
- Router (wireless LAN access point)

## Connect the smartphone (tablet PC) to the router via Wi-Fi.

Open “Wi-Fi” on the Settings screen of the smartphone, and select SSID of the router to be used. Then, establish the connection by entering the password of the router.

## 1. Install the application.

How to install “Smart M-Air”

### How to install the “Smart M-Air” smartphone application

#### For Android

1. Open [Google Play].
2. Search for [Smart M-Air].
3. Install the application according to the instructions on the screen.

#### For iOS (iPhone)

1. Open [App Store].
2. Search for [Smart M-Air].
3. Install the application according to the instructions on the screen.

### Application Operation Manual

Refer to the home page of MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

[http://www.mhi-mth.co.jp/en/products/detail/air-conditioner\\_users\\_manual.html](http://www.mhi-mth.co.jp/en/products/detail/air-conditioner_users_manual.html)



- The application is free. Communication data charges by others are applied to download and operate.
- The application name “Smart M-Air” and download service names “Google Play” and “App Store” may be changed in the future.
- For the settings, contents, and latest supported OS of the application, refer to our home page or the User's Manual on our home page.

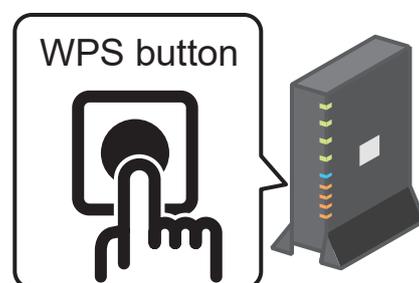
## 2. Confirm that the router to be used is equipped with the WPS function (simple setting function).

WPS: Use when you connect to the router only by operating buttons.

AP: Use when you connect to the router by entering and setting SSID and KEY (password).

### Wireless LAN router equipped with WPS function (simple setting function)

- (1) Press the Power button for 2 seconds or more on the wireless LAN interface. The power is switched from OFF to ON, and the Running LED stays ON.
- (2) Short press the Set button to enter WPS mode. Confirm that the Running LED flashes (every second).
  - Perform the following setting within 2 minutes. If 2 minutes has passed, perform the procedure again from (1).
  - \* The WPS and AP modes cannot be switched. Therefore, if you fail to set the mode, wait for 2 minutes (5 minutes in AP mode) before performing the setting again.
- (3) Press the WPS button on the router\*. The buttons generally look like this 
  - The operation method of the WPS button differs depending on the router. For details, refer to the manual provided with the router.
  - \* If an automatic connection function other than the WPS function is used, operate the automatic connection button by referring to the manual provided with the router.



- (4) When the connection is complete, the Communication LED lights up for 2 seconds. Start the application and tap the “Find unregistered Air Conditioners” button on the air conditioner list screen.
- Confirm that an icon of the unregistered air conditioner is added. If it is not displayed, confirm again that steps (1) to (3) have been performed properly.
  - \* If it is not connected, wait at least two minutes and wait until the green LED lights up all the time, try again from (2).
  - Confirm that the last 4 digits of the SSID labelled on the wireless LAN interface is displayed as the name of the air conditioner.

Last 4 digits of the SSID



## Wireless LAN router NOT equipped with WPS function

- If the wireless LAN router is not equipped with the WPS function, use the procedure below to connect the wireless LAN router interface.
- (1) Press the Power button for 2 seconds or more on the wireless LAN interface. The power is switched from OFF to ON, and the Running LED stays ON.
  - (2) Press the Set button for 2 seconds or more to enter AP mode. Confirm that the Running LED flashes (ON for 2 seconds and then OFF for 0.5 second).
    - Perform the above within 5 minutes. If 5 minutes has passed, perform the procedure again from (1).
    - \* The WPS and AP modes cannot be switched. Therefore, if you fail to set the mode, wait for 2 minutes (5 minutes in AP mode) before performing the setting again.
  - (3) Connect the smartphone to the wireless LAN interface. Open the Wi-Fi setting of the smartphone. Select the SSID labelled on the wireless LAN interface, and enter the KEY (password) indicated on the label.

- (4) Start the application and tap the “Find unregistered Air Conditioners” button on the air conditioner list screen.
- Confirm that an icon of the unregistered air conditioner is added.
  - Confirm that the last 4 digits of the SSID labelled on the wireless LAN interface is displayed as the name of the air conditioner.

Last 4 digits of the SSID



- (5) Select the wireless LAN router to which the smartphone is connected on the wireless LAN setting screen of the application.
- If the wireless LAN router is not displayed on the list, enter the SSID and KEY (password) of the wireless LAN router directly.
- (6) When the connection is complete, the Communication LED lights up for 2 seconds. The connection between the wireless LAN interface and the wireless LAN router is established.
- Confirm that the air conditioner is added on the list screen. If it is not displayed, confirm again that steps (1) to (5) have been performed properly.
- \* If you fail to connect even after confirming the screen again, the number of devices connected with the wireless LAN router may have reached its upper limit, or the router may not be operating or may have failed. Therefore, check the wireless LAN router according to the user’s manual of the router.
  - \* If the Internet line is disconnected, contact your Internet provider for confirmation.
  - \* If the interface cannot be connected to the application even by following the setting procedure in this manual, refer to FAQ in the menu of the application.

### 3. Connect the air conditioner to the network.

Please display the Air Conditioner List screen according to the Smart M-Air Operation Manual.



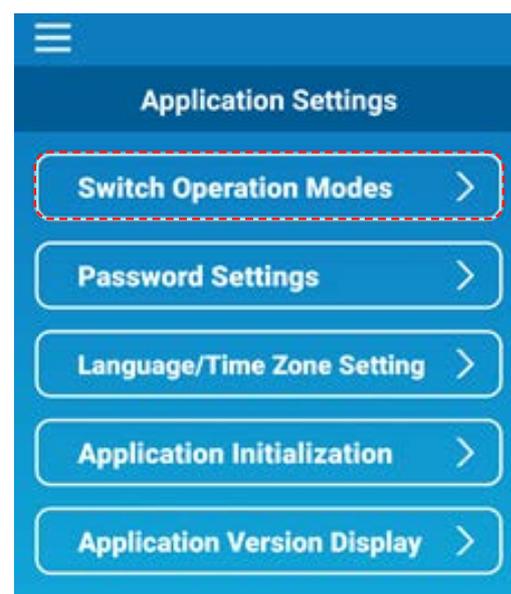
## 4. Start the application and operate the air conditioner at home (away from home).

- Setting is complete if the connected air conditioner is displayed on the equipment list screen.

If it is not displayed, update the screen by tapping the “Find unregistered Air Conditioners” button on the “Air Conditioner List” screen.

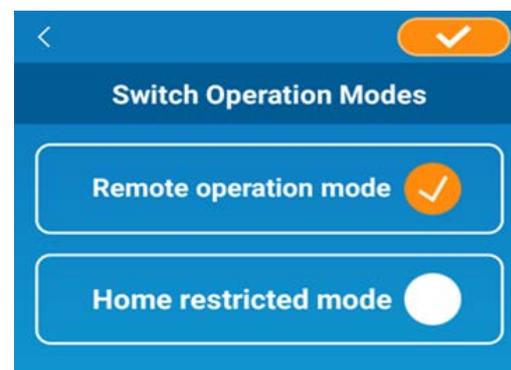


- To operate the connected air conditioner away from home, open the “Application Settings” screen on the main menu, and switch to the “Remote operation mode” on the “Switch Operation Modes” screen. A log-in ID and password must be set. **The setting operation can be performed only at home.**



Login ID: \_\_\_\_\_

Password: \_\_\_\_\_



- \* Note that if the mode is switched to the home dedicated operation mode, the account information used in the “Remote operation mode” is deleted.
- \* While the air conditioner is used in the “Remote operation mode”, it may temporarily stop due to the maintenance of the server.
- \* If you fail to confirm the air conditioner status or operate the air conditioner by using the smartphone, the communication line of the smartphone may be disconnected. In such a case, confirm the connection status according to the user’s manual of the smartphone.
- \* If the application is operating slowly, stop the other applications.
- \* Always keep the application up to date.

## In case:

- Turning OFF the wireless LAN interface function
  - Press the Power button for 2 seconds or more, and the Running LED and Communication LED turn OFF and Power OFF.
- It is not behaving as it should
  - Short press the Reset button for less than 3 seconds, and the Running LED and Communication LED turn ON for 10 seconds, and then Reset.
- Initialising wireless LAN interface
  - Press the Reset button for 3 seconds or more, and the Running LED and Communication LED flash 10 times for 10 seconds, then it is initialised. If the interface is reset, it is needed to set a login ID and password again.
- Moving or disposing of the air conditioner, necessary changing of the user
  - Be sure to reset the wireless LAN interface (by pressing the Reset button for 3 seconds or more).
- Disposing of this product
  - Follow the ordinances established by your local government.
- Cleaning the product: unplug the air conditioner and wipe with a soft dry cloth. If the product is dirty, wipe with a cloth that is moistened with lukewarm water and wrung sufficiently. When using a chemical dust cloth, follow its precautions.
- Turning ON the LED

Switch to the Home restricted mode in the application and tap the LED ON.

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