

This instruction manual is exclusively prepared for the following wireless kit.

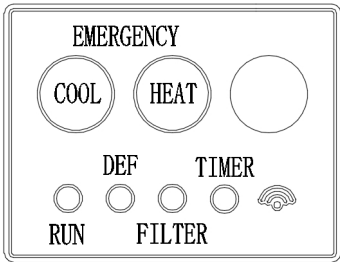
**Installation &
Operation Manual
for Wireless Kit**

Note: This manual is a must for the following installation operations. Users are expected to keep it in good order.

(Handling & Installation)→(Wiring)→(Test Run)→(User)

Please confirm the model numbers of your air conditioner and signal receiver — Please mark the box with “√”.

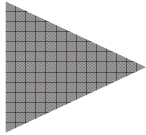
To properly use this signal receiver, please read this manual carefully before use. Please keep this manual carefully. When in doubt, please contact your dealer or our service center.



For the Mini 4-way Cassette Type

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Introduction

This is a general-purpose control product, of which the features must be supported by air-conditioning system. The connection to certain air-conditioning systems may result in the failure to realize some features stated in this instruction manual. Please consult your dealer for further information.

- The selection of installation site shall give priority to user's convenience and get user's permission.

Please don't install this product in the following places:

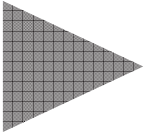
- Places filled with mist of oils (including machine oil) or much vapor, and places such as hot springs with sulfuretted gases (that may result in fire and cause deformation, corrosion, or damage to this product);
- Coastal areas with high salt content and acidic or alkaline environments (that may cause corrosion to this project);
- Places within children's reach;
- Places with high humidity;
- Places directly facing the air outlet of air conditioner;
- Places with much fugitive dust or dust;
- Places under construction.

- Where devices like medical devices, etc. that generate electromagnetic waves are used, do not have the electromagnetic wave emitting surfaces directly faced to this product, since this may lead to the false operation of the product and its associated devices.

- To avoid the impact of electromagnetic waves on this product and its associated devices, please keep devices like radio sets, etc. generating electromagnetic waves 3m away from the product.

- This product shall be installed in an iron box with its connecting wires placed in an iron sleeve for shielding purpose.

- If disturbance is generated by some devices at the mains side, please use a filter or take other appropriate measures to avoid disturbance.



Safety Precautions

- Please read the Safety Precautions carefully before use.
- Precautions given here fall into two categories, i.e. ⚠ WARNING and ⚠ CAUTION. The [⚠ WARNING] column contains the items where installation error may lead to severe injury, death or other serious consequences. The items contained in the [⚠ CAUTION] column may also result in serious consequences depending on the circumstances. The warnings and cautions must be closely observed because they deal with important safety-related contents.
- Perform test run upon completion of installation. If no anomaly is found, please show users the operation and maintenance procedures, and request them to properly keep this instruction manual for installation and check.


Connotation of Symbol


 WARNING: False operation may cause serious injury or death.	 : Indicate mandatory issues. Give instructions for non-professional general users.
 CAUTION: False operation may cause injury or damage to articles.	
 NOTE Precautions, i.e. other precautions than warnings and cautions.	 : Indicate reference page.
 : Indicate prohibitions.	 : Help you for easier operation.


Safety Precautions (Cont.)

Installation

⚠ WARNING

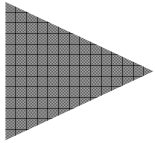
● Please perform installation in strict accordance with this instruction manual for installation and check. Otherwise, accidents such as electric shock, fire or fall may arise. Please install this product in a space that can bear its weight. Otherwise, this product may fall and cause impact injury. 

● Please don't install this product in places that may produce or get filled with flammable gases. Otherwise, accidents such as electric shock or fire may arise. 

● Completely turn off the power supply before the installation of this product. Otherwise, electric shock may occur. 

⚠ CAUTION






● When disturbed by external light sources like fluorescent lamp (variable frequency fluorescent lamp), the products designed with signal receivers may fail to receive signals as required.



Safety Precautions (Cont.)

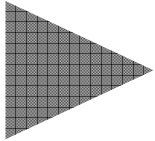
Electrical Installation

⚠ WARNING

- The electrical installer must be qualified for construction. Please entrust qualified dealers for construction. Otherwise, electric shock may occur. 
- For electrical installation, please follow appropriate national standards and the instruction manual for installation and check. Be sure to use dedicated line. Otherwise, accidents such as electric shock or fire may arise. 
- Never fail to use specified connecting wires. Otherwise, accidents such as electric shock or fire may arise. 
- The wiring connection shall be robust and secure. Loose connection may cause wires to generate heat, which may bring about fire or electric shock. 
- Please completely turn off the power supply when taking out the control base plate of this product or associated device for purpose of electric wiring and check, etc. Otherwise, electric shock may occur. 

⚠ CAUTION

- Never route communication wires alongside power cords. Otherwise, the resulting disturbance may lead to false operation.



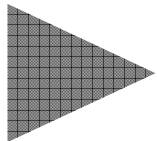
Safety Precautions (Cont.)



Repair and Remove

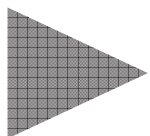

WARNING

- For the repair and remove of unit, please consult your dealer or our designated service center.
- Improper repair and installation is likely to result in electric shock, fire, and other accidents.



Safety Precautions (Cont.)

Other Warnings and Precautions	
⚠ WARNING	● Please keep water away from the interior during maintenance and servicing. Electric parts exposure to water may cause electric shock.
	● Please don't modify electric wiring, since this may lead to heavy accidents.
	● Please use sturdy scaffolds for maintenance and servicing, or turnover may occur and cause injury.
	● Please don't spray water or spray-type detergent into the unit during maintenance and servicing, since the resulting electric short circuit may result in fire and electric shock accident.
	● Never fail to maintain the electric parts and connectors during maintenance and servicing, and be sure to keep water away. Otherwise, short circuit may cause fire and electric shock.
⚡ CAUTION	● When opening/closing the intake grille and installing/removing the filter screen, please hold them by hand; otherwise, the grille and screen may fall to cause injury accident.



Description of Applicable Models and Schedule of Parts

☐ indicates confirmation item, and shall be marked with ☒ after confirmation


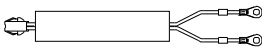
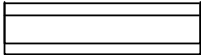
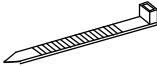
[Applicable Models]

Indoor unit models for which this wireless kit applies

Applicable Indoor Unit Model : Mini Four-way Cassette Type

[Before Installation]

Please check if the following components are in the package before installation.

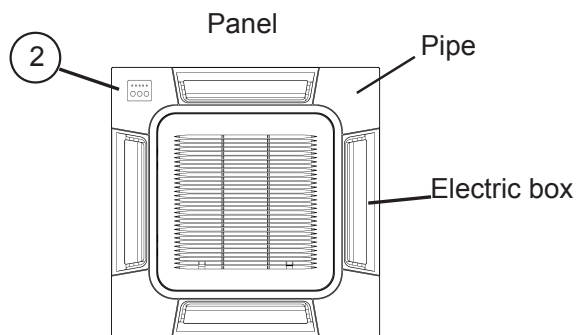
Part name	Q'ty	Remarks
Wireless Kit 	1	With wire
Relay wire 	1	For wiring
Protective cover for wiring 	1	For protection of relay connector
Wire tie 	3	For fixation of the protective cover for wiring and the relay connector

Wireless Kit Installation Gist

[Installation Gist]

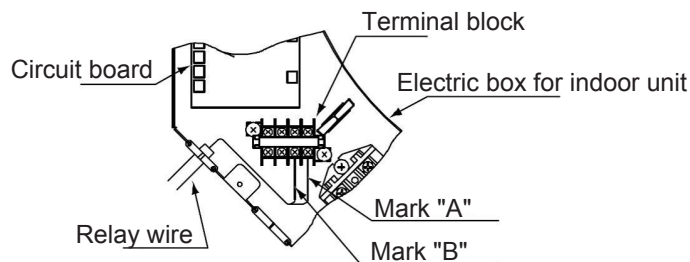
● Installation

- 1) Please install the receiver when installing the indoor unit and chosen panel.
- 2) Where the receiver is to be installed after the installation of indoor unit and panel, the receiver shall not be installed before power-off and the removal of panel.
- 3) This detector can only be installed at corner ②. In the case of multi-unit configuration, the orientation and location of installation shall be determined through consultation with user.



Note) Function setup can be performed with SW1 of the receiver. Please refer to the instructions given on Page 13, and properly set up the functions before installation of panel.

- 4) Take off the electric box cover of indoor unit, and connect the terminal block in the electric box for indoor unit at the point indicated on the right figure to the attached relay connector.



Wireless Kit Installation Gist (Cont.)

- 5) After the proper connection of the attached relay wire to terminal block, the relay wire shall be led out of the indoor unit wiring inlet into the ceiling or to the outer side of indoor unit, and then to the mounting position of detector; refer to the instruction manual for indoor unit. The relay wire shall be connected by passing it through the indoor unit hanger to the mounting position of receiver. A **3-15/16~7-7/8in.** (100~200mm) long space shall be reserved at the connection point of relay connector.

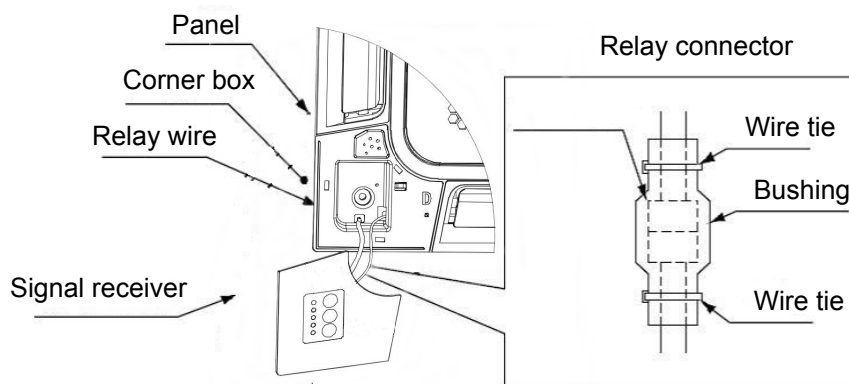
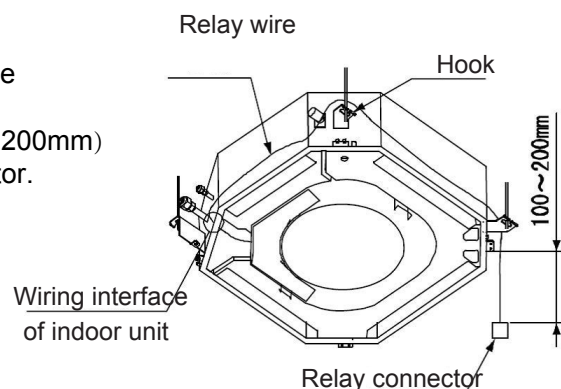
Note) For the connection of relay wire, wire ties shall be used to tie the surplus part of wire into the ceiling or onto the indoor unit.

- 6) Installation of chosen panel

Please refer to the instruction for installation of the panel for the method of installation.

- 7) Install the signal receiver after the panel is in place.

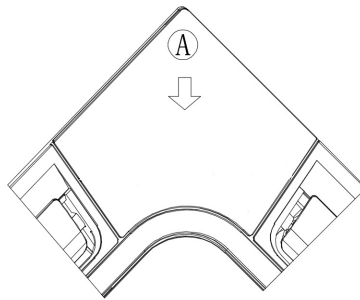
Lead the relay wire out of the corner box of panel, as shown in the figure below, and connect the wire of signal receiver to the connector of relay wire. Upon completion of the connection with connector, the connector shall be tightly wrapped with the attached bushing and fastened with wire ties.



Wireless Kit Installation Gist (Cont.)

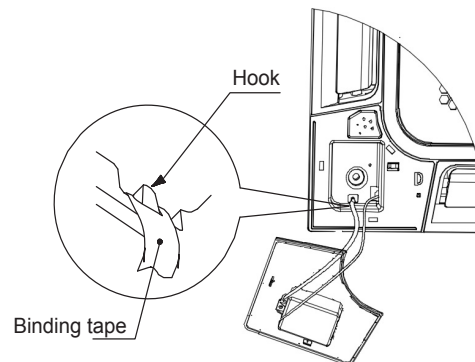
● Method of removal

- ① Insert a slotted screwdriver or a finger into part A of corner box protection cover, apply force gently in the direction of arrow, when the corner box protection cover springs up.



- ② As shown in the figure below, the binding tape on the back of signal receiver shall be hanged to the panel hook.

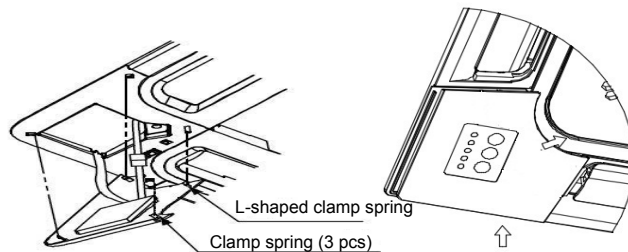
Note) Make sure the binding tape has been hanged onto the hook. Otherwise, the detector being removed may fall and cause injury.



Wireless Kit Installation Gist (Cont.)

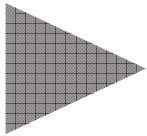
③ Hold the wire while inserting the L-shaped clamp spring on the back of wireless kit into corner box, and press the 3 remaining clamp springs into corner box in the direction of arrow.

Note) Make sure the L-shaped clamp spring on the back of receiver has been hanged on panel. Failure to do so may cause damage to other clamp springs.



8) Mount protective covers (3 left) of panel corner box after the proper installation of wireless kit. Refer to the Installation Manual for Panel for further information about installation procedure.

Note) After the detector is properly mounted, there should be one corner box left unused.



Wireless Kit Setup

[Wireless Kit Setup]

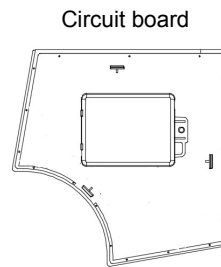
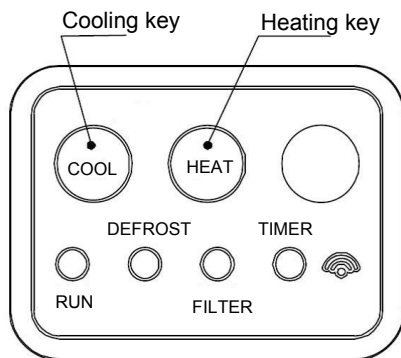


Be sure to turn off the power supply before setting up the receiver DIP switch. Otherwise, electric shock may occur.



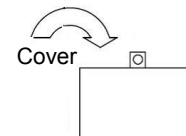
Keys and DIP Switches of Wireless Kit

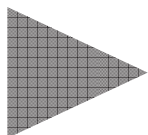
Note) After the setup of DIP switch, pay attention to the lead-out point of wire when assembling the box cover.



Back of receiver

Loosen and remove the screw (1 screw)





Wireless Kit Setup (Cont.)

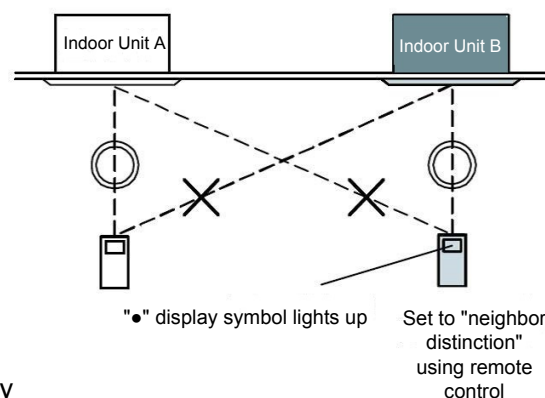
DIP switch (SW1) is an optional setup feature to be handled based on the following requirements as needed.

Item	DIP switch (SW1)				Function
	1	2	3	4	
Master/slave setup	○	×	×	×	Where 2 remote controls are used, the master (set to OFF)/slave (set to ON) remote control switchover is set up.
Neighbor Distinction Setup	×	○	×	×	"ON" corresponds to mode B of wireless remote control (neighbor distinction).

"O": ON; "x": OFF

[Neighbor Distinction Control Mode]

Where two indoor units are arranged adjacently, both indoor units receive the signal from remote control sometimes. To assure proper operation of both indoor units, one receiver can be set to "neighbor distinction control" mode. Take indoor units A and B shown in the right figure for example; indoor unit B is set to "neighbor distinction control" mode.



[Neighbor Distinction Control Mode Setup Procedure]

1) Wireless Kit Setup

The neighbor distinction control mode can be disabled by setting #2 key of the wireless kit DIP switch (SW1) to OFF side.

2) How to Set Wireless Remote Control

Set as per the Operation Manual for the wireless remote control.

Wireless Kit Setup (Cont.)

[Neighbor Distinction Control Mode Disabling Procedure]

1) Wireless Kit Setup

Set the #2 key of wireless kit DIP switch (SW1) to OFF to disable the neighbor distinction control mode.

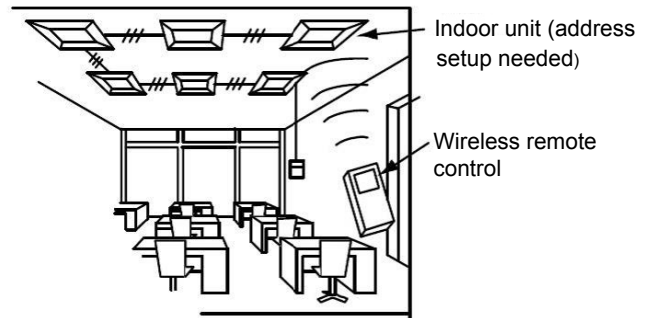
2) Wireless Remote Control Setup

Disable as per the Operation Manual for wireless remote control.

[Simultaneous Control of Multiple Units]

One remote control can be used for simultaneous control of a number of (up to 16) indoor units. One remote control can be used to control the run/stop of all units in a big room.

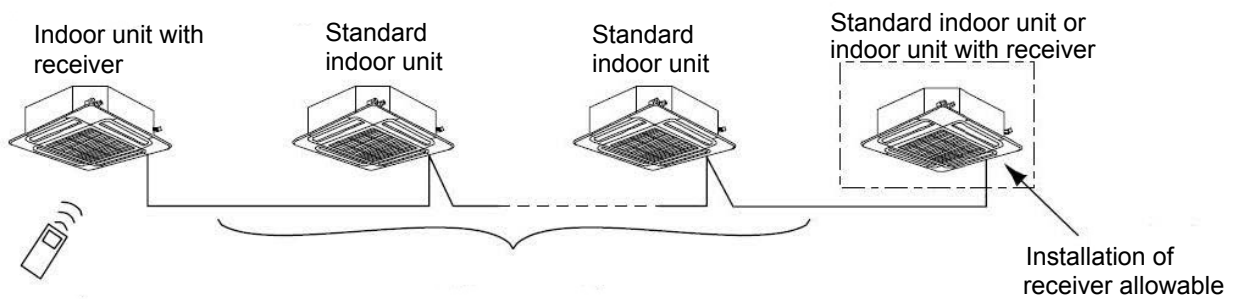
Note) Where simultaneous control of multiple units is employed, the indoor units shall be arranged in the same room. If one remote control is used to control air conditioners for two or more rooms, it is possible that some units are not turned off sometimes.



[Wireless Kit Setup]

Where a wireless remote control is used for simultaneous control of the run/stop of multiple indoor units, nothing remains but to install wireless kits on control objects; other indoor units are of standard types. In the same system, however, up to 2 indoor units can be furnished with wireless kit.

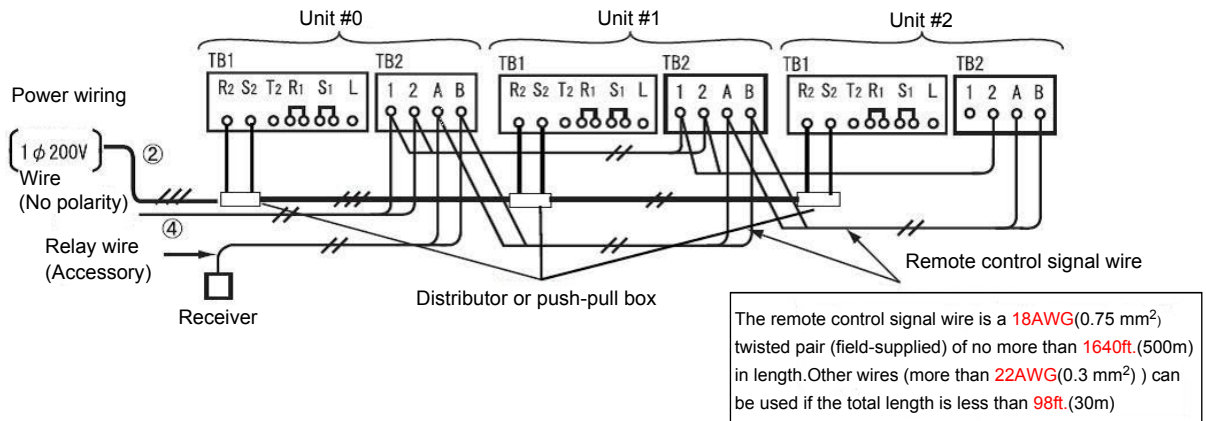
Wireless Kit Setup (Cont.)



[Method of Wiring and Setup for Simultaneous Control of Multiple Units]

1) Method of wiring connection between indoor units

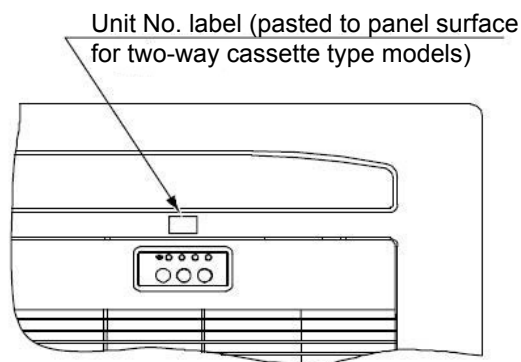
Please establish connections based on the figure below.



Wireless Kit Setup (Cont.)

- 2) Remote control signal wires between units shall not be arranged in parallel with power cords within units, and shall be secured with wire tie in key areas. Signal wires shall be at least **1.18in.** (30mm) away outside units. Fire signal wire shall be arranged in protective sleeve, of which one end must be grounded. Where shielded signal wire is used, one end of the shielding net shall be earthed.
- 3) Set the address of each indoor unit.
- 4) After the setup of rotary switch, attach the unit No. label accompanying the remote control to the unit. The attachment point is shown in the figure below.

For mini four-way cassette type indoor unit



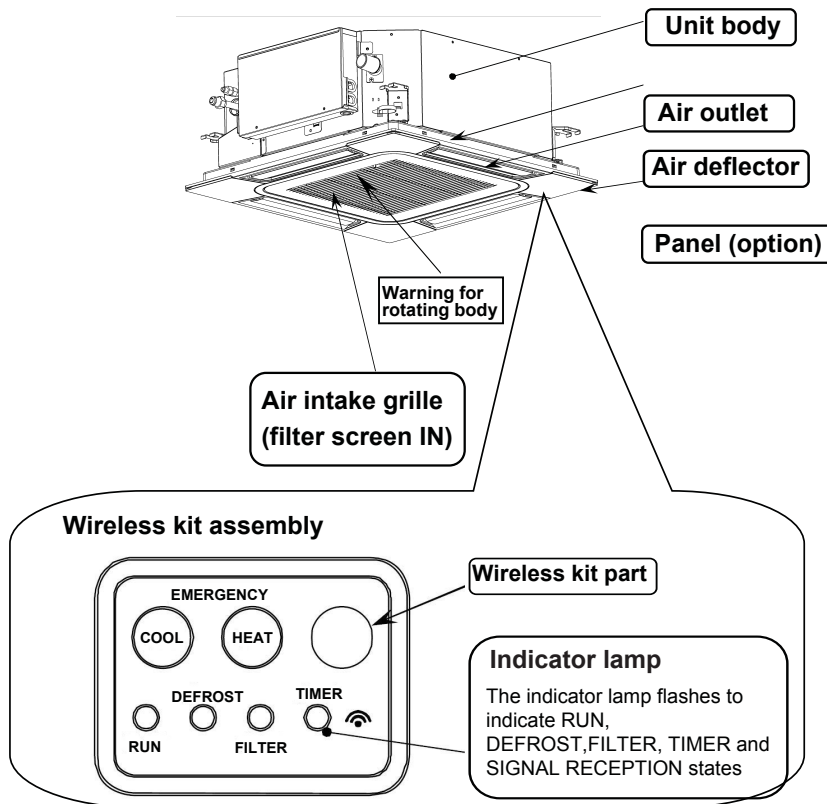
[Method for Test Run with Wireless Remote Control]

Please perform the testing in the light of Operation Manual for wireless remote control.

Name of Each Part of the Unit

Mini Four-way Cassette Type

- For safety's sake, the body of air conditioner indicates the safety notice. Please follow the precautions when using and servicing the machine.



How to Use Wireless Remote Control



● Please don't put the wireless remote control in areas where the temperature may rise frequently, since this may impair the regular service of remote control.

- Areas exposed to sunlight.
- Areas near stoves.

● Please use with caution! Remote control may go wrong when it falls onto the ground or gets exposed to moisture.

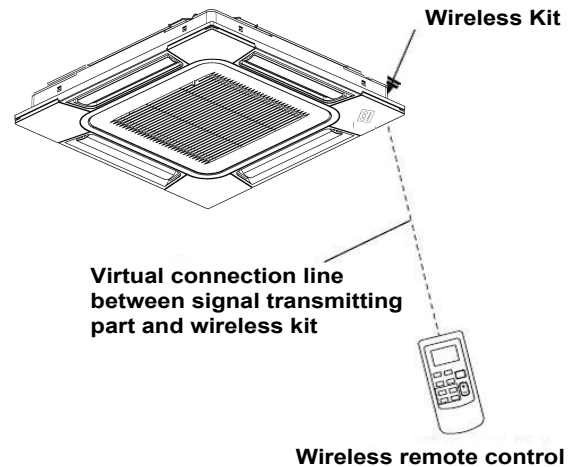
Method for Wireless Remote Control to Send Signals

● Align the signal transmitting part of wireless remote control with the light sensing hole of wireless kit.

● The signal transmission point shall be as close to the indoor unit as possible, while the wireless remote control shall be perpendicular to the plane of wireless kit (provided that the wireless remote control is not perpendicular to the plane of wireless kit or that fluorescent lamp or other electric appliances are used, the signal transmission distance would be shorter).

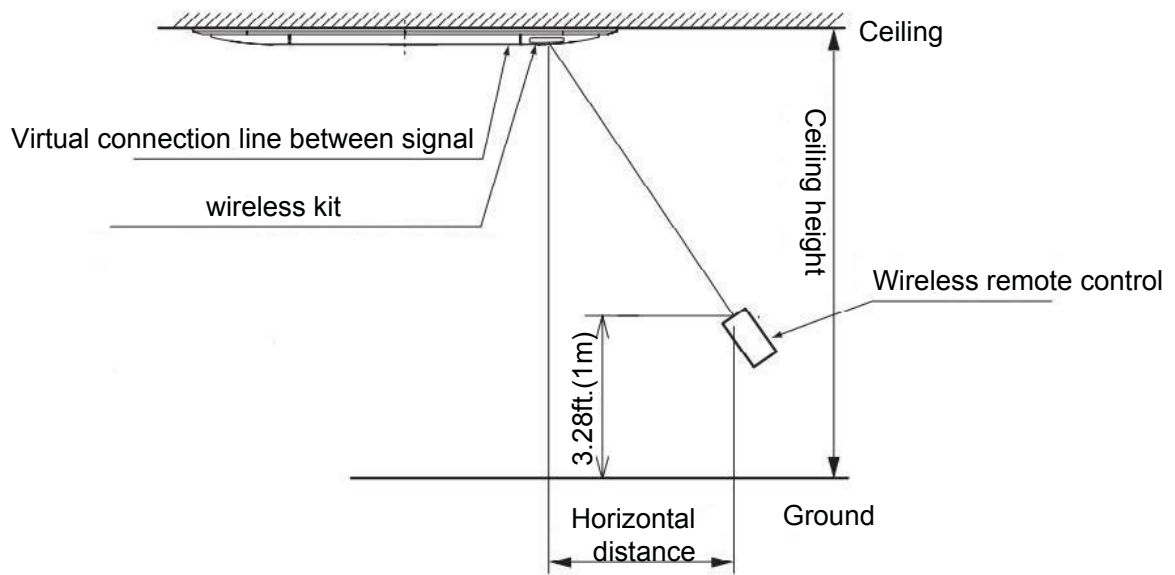
● When used to transmit signal, the wireless remote control shall be located within the range of 120-degree cone with the plane of wireless kit as reference; lower ceiling height (the height of indoor unit) corresponds to larger light sensing angle. Possible light sensing distances are shown in the table below, and vary with building structure.

● The signal transmission distance is inversely proportional to battery level, so battery shall be replaced when necessary.



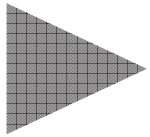
Possible Light Sensing Distance of Signal Receiver

● Mini Four-way Cassette Type



Possible horizontal light sensing distance (when the remote control is 3.28ft.(1m) above the ground)

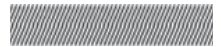
Indoor unit height ft.(m)	8.86ft. (2.7)	9.84ft. (3.0)	11.48ft. (3.5)	13.12ft. (4.0)	14.76ft. (4.5)	16.40ft. (5.0)
Possible horizontal light sensing distance ft.(m)	9.51ft. (2.9)	11.48ft. (3.5)	13.12ft. (4.0)	14.76ft. (4.5)	14.76ft. (4.5)	14.76ft. (4.5)




How to Use Wireless Remote Control (Cont.)



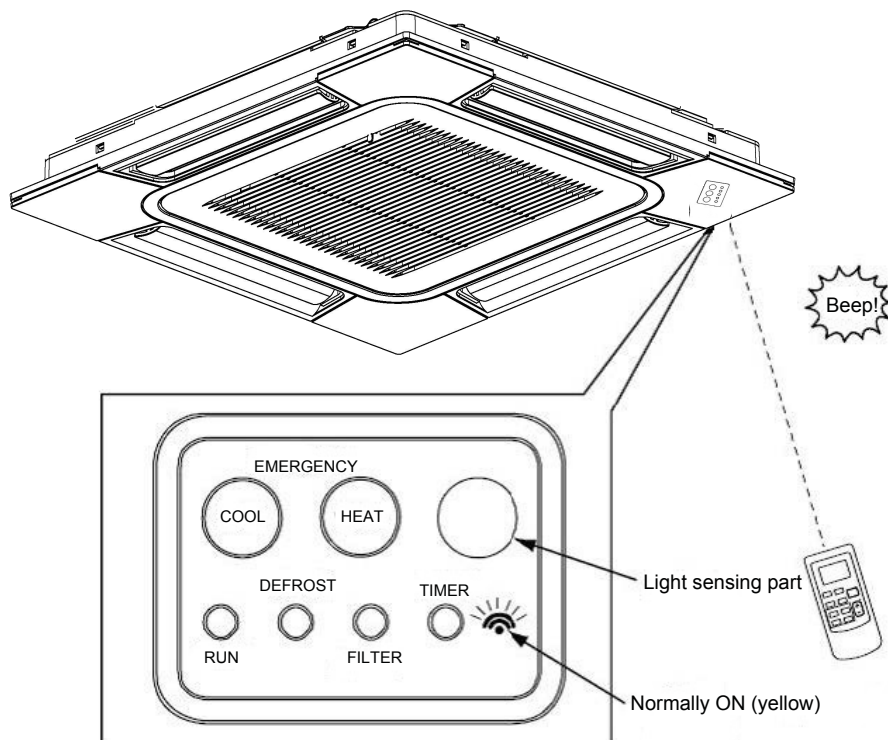
Signal reception confirmation of wireless kit




● The  indicator lamp on wireless kit screen flashes when the wireless kit receives signal from wireless remote control.

The  indicator lamp does not flash indicates that the wireless kit receives no signal.

Please send again.



NOTE

- Upon signal transmission acknowledgment, the indicator lamp  on wireless kit screen flashes with buzzing (if "mute" is enabled in the selection settings, no buzzing is emitted). When the lamp is not ON or the buzzer lasts for 1 second, it means the signal is not received. Please send again.
- It is possible that the buzzer is not heard due to the noise around.

Emergency Run Operation Procedure



WARNING

- Please activate EMERGENCY mode after turning off the power supply completely. Otherwise, electric shock may occur.



Operation and Function

- Emergency run can be activated when the remote control fails to function properly due to running down of battery.
- There are two running modes, i.e. "COOL" and "HEAT".



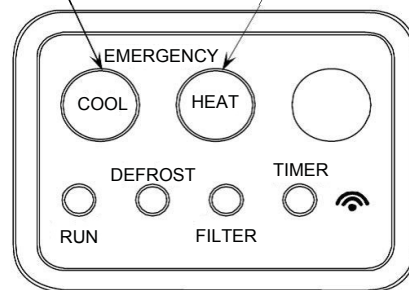
- " COOL" Set temperature: 69.8°F(21°C)
Air volume: High
- " HEAT" Set temperature: 86°F(30°C)
Air volume: High

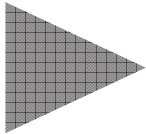
"COOL" key: Press to start refrigeration;
press again to stop refrigeration.

"HEAT" key: Press to start heating;
press again to stop heating operation.

"COOL" key


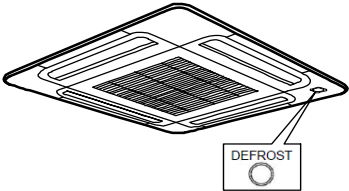


"HEAT" key

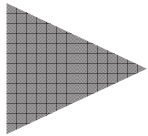






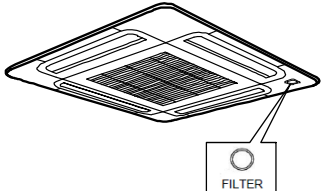

Relevant Displays of Wireless Kit

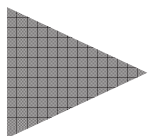
General Display

Temperature regulation	<ul style="list-style-type: none">● Due to the control effect of temperature regulation, the heating operation turns into low-speed operation, when the display content can't be changed (only during heating operation).	
Defrost	<p>During defrosting operation</p> <ul style="list-style-type: none">● The (green) indicator lamp ^{DEFROST}  goes ON. Indoor unit fan stops. The air deflector is level, while the air direction is almost level. The liquid crystal display keeps original state.	
	<p>After defrosting operation</p> <ul style="list-style-type: none">● The (red) indicator lamp ^{RUN}  goes OFF. The operation continues with the (green) indicator lamp ^{DEFROST}  ON, and stops upon completion of defrosting.	






Relevant Displays of Wireless Kit (Cont.)

Filter	<p>Filter Screen Blockage</p> <ul style="list-style-type: none"> The (orange) indicator lamp  goes ON. Indicate the need for cleaning due to excessive deposition at filter screen (refer to the operation manual for indoor unit for details of cleaning procedure). Align the wireless remote control with the signal receiver and press the button after cleaning operation, when the indicator lamp  goes OFF. 
Central control	<ul style="list-style-type: none"> When the (orange) indicator lamp  is normally ON, it means the operation is in remote centralized control state. If this is the case, the wireless remote control is available only for resetting and run/stop operations.



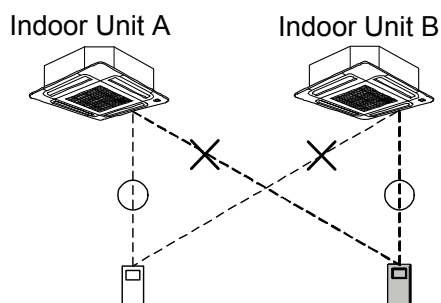
Relevant Displays of Wireless Kit (Cont.)

Exception	The (red) indicator lamp  , (green) indicator lamp  and indicator lamp  flash. Please contact the dealer after the confirmation of indicator lamp's flashing state.
Outage	<ul style="list-style-type: none">● All contents displayed disappear.● In the case of power failure-induced shutdown, the operation will not be resumed even after power-on. A running cycle shall be performed. ※ The operation can be resumed in the case of momentary outage that lasts for no more than 2s.
Disturbance	<ul style="list-style-type: none">● All contents displayed disappear. However, it is possible that the operation stops because the microprocessor operates to protect the device under disturbance.

Neighbor Distinction Control Mode

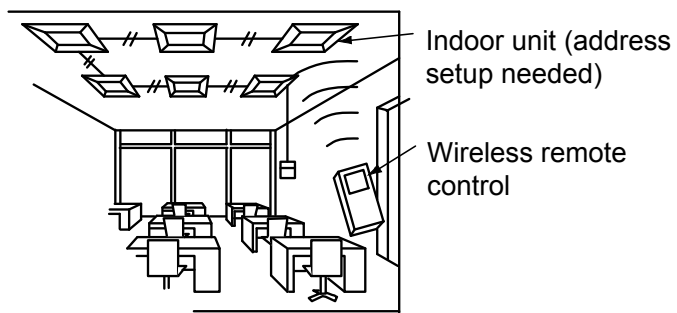
To separately control adjacent indoor units, the method shown in the right figure shall be employed. Please consult the dealer or our After-sales Service Department for further information.

"Neighbor Distinction Control" Mode



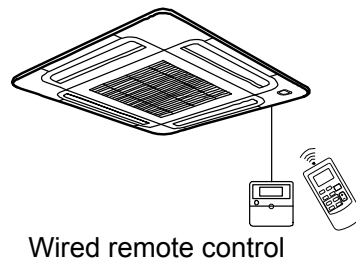
Simultaneous Control of Multiple Units

One remote control can be used for simultaneous control of a number of (up to 16) indoor units. Please consult the dealer or our After-sales Service Department for further information.



Simultaneous Use with Wired Remote Control

An air conditioner can be controlled through wireless and wired remote controls. Please contact your dealer or our after-sales service department for further information.

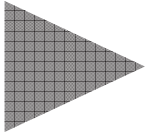


Auto Run

Air conditioner runs as follows automatically

Auto Run (Cont.)

3-minute protection		To protect the compressor of outdoor unit, the operation can't be resumed within at least 3 minutes after stop of operation. The operation is resumed automatically in about 3 minutes.
Refrige-ration	Prevent freezing	If the heat exchanger temperature of indoor unit is excessively low, the compressor will get out of service automatically, when air supply is activated to prevent the heat exchanger from freezing.
Heating	Warm start	At the start of heating operation, the speed is automatically regulated in the order low speed → middle speed → set speed progressively so as to prevent the output of cold air. Upon completion of startup, the horizontally fixed outlet air deflector automatically resumes its original state.
	Air supply stopped for defrosting	The air feeder stops automatically to avoid cold air output during defrosting operation.
	Surplus heat removal	Upon the stop of heating operation, the unit continues to run at an extremely low air speed for up to 2 minutes to reduce the internal temperature of indoor unit.
	Overload prevention	The overload point varies with indoor temperature during heating operation. The heating operation stops in the case of high outdoor temperature (approx. 69.8°F(21°C)).



Wireless Kit Alarm Display

[Wireless Kit Alarm Display]

Note 1) When the protection device operates during regular operation, the run indicator of wireless kit flashes on a "0.5s-ON/0.5s-OFF" basis.

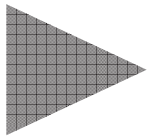
Note 2) The alarm code can be confirmed based on the flashing count of DEFROST indicator lamp and FILTER indicator lamp.

DEFROST indicator lamp: The flashing count represents the number at ten's place of alarm code.




FILTER indicator lamp: The flashing count represents the number at unit's place of alarm code.

Example) The alarm code is 35

After the DEFROST indicator lamp flashes on a "0.5s-ON/0.5-OFF" basis for 3 times, the FILTER indicator lamp flashes on a "0.5s-ON/0.5-OFF" basis for 5 times. Above-noted operation is repeated until the suspension of alarm.



Wireless Kit Alarm Display (Cont.)

Exception	<ul style="list-style-type: none">● The (red) indicator lamp  RUN, (green) indicator lamp  DEFROST indicator lamp flash  FILTER <p>Please contact the dealer after the confirmation of indicator lamp's flashing state.</p>
Outage	<ul style="list-style-type: none">● All contents displayed disappear.● In the case of power failure-induced shutdown, the operation will not be resumed even after power-on. A running cycle shall be performed.
Disturbance	<ul style="list-style-type: none">● All contents displayed disappear. However, it is possible that the operation stops because the microprocessor operates to protect the device under disturbance.

