# TOSHIBA

# AIR CONDITIONER (SPLIT TYPE) Owner's Manual For wireless remote controller

R32

For commercial use

# **Indoor Unit**

Model name:

High-Wall Type

# RAV-HM1101KRTP-E

Scan QR CODE to access installation and owner's manual on website. <u>https://www.toshiba-carrier.co.th/manuals/default.aspx</u>

Manual are available in AR/BG/CS/DA/DE/EL/EN/ES/ET/FI/FR/ HR/HU/IT/LT/LV/NL/NO/PL/PT/RO/RU/SK/SL/SV/TR.



#### **Original Instruction**

Thank you very much for purchasing Air Conditioner.

- Please read this owner's manual carefully before using your Air Conditioner.
- Be sure to obtain the "Owner's manual" and "Installation manual" from constructor (or dealer).
- Request to constructor or dealer
- Please clearly explain the contents of the Owner's manual and hand over it.

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# ■ Information on the transportation, handling and storage of the carton

# • Examples of indication on the carton

| Symbol        | Description                                                   | Symbol                     | Description                |
|---------------|---------------------------------------------------------------|----------------------------|----------------------------|
| Ť             | Keep dry                                                      |                            | Do not drop                |
| Ţ             | Fragile                                                       |                            | Do not lay down            |
| 7 - 7 cartons | Stacking height<br>(8 cartons can be stacked<br>in this case) | DO NOT WALK ON THIS CARDON | Do not walk on this carton |
|               | This side up                                                  |                            | Do not step                |
|               | Handle with care                                              |                            |                            |

| Other cautions                                                                                                                       | Description                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Caution           Injury possibility.           Dori thandle with packing band,           or may get injured in case of broken band. | <b>CAUTION</b><br>Injury possibility.<br>Don't handle with packing band, or may get injured in<br>case of broken band. |

# **1** ACCESSORIES

Remote controller



## Remote controller holder

Batteries (two)



# **2** PARTS NAME

# Indoor unit



- 1 Air inlet grille
- 2 Air filter
- **3** Room temperature sensor
- 4 Front panel
- 5 Air outlet
- 6 Horizontal airflow louver (front)

- 7 Horizontal airflow louver (back)
- 8 Vertical airflow louver
- 9 Display panel
- 10 Infrared signal receiver
- 11 Remote controller (wireless)
- 12 Remote controller (wired, sold separately)

# Names and functions of indicators and controls on indoor unit

### **Display panel**



The operating conditions are indicated below.

#### **1** OPERATION (White)

This lamp goes on during operation.

#### **2** TIMER (White)

This lamp goes on white the timer reserved.

#### NOTE

In case of timer setting by wired remote controller, TIMER lamp does not light.

In case of group control, TIMER lamp goes on header unit only. (see "7 LIMITED OPERATION BY GROUP CONTROL")

#### **3** Preheat/Defrost (White)

This lamp lights up when the power is turned on or right after heating operation starts or during defrost operation.

# 

- **Disagreement in operation mode** If you select AUTOMATIC OPERATION in a model with no auto-changeover (cooling/heating) control setting or if you select HEAT in a Cool Only model, an alarm sound (pi, pi) from the air conditioner due to disagreement in operation mode. Change the operation mode with the MODE button on the wireless remote controller. This disagreement indication cannot be deleted by the wired remote controller.
- When local prohibition is set by the central control from other equipment, no signal is received even if the remote controller button is pressed. However, a signal of START/STOP button is accepted. (An alarm sound "pi " arises intermittently five times.)

#### **TEMPORARY** operation

If you misplace or lose the wireless remote controller or its batteries are exhausted, push the [RESET] button.

• Push and detach the [RESET] button to start the air conditioner.

Push this button once again to stop it.



**RESET Button** 

# **3** PARTS NAME OF REMOTE CONTROLLER

# Wireless remote controller and its functions



#### 1 Infrared signal emitter

Transmits a signal to the indoor unit.

#### 2 START/STOP button

Press the button to start operation. (A receiving beep is heard.) Press the button again to stop operation. (A receiving beep is heard.) If no receiving sound is heard from the indoor unit, press the button twice.

### **3** Mode select button (MODE)

Press this button to select a mode. Each time you press the button, a mode is selected in a sequence that goes from A : Auto changeover control, 3: Cool, 3: Dry, 3: Heat, 3: Fan only, and back to A. (A receiving beep is heard.)

# 4 Temperature button (

The set temperature is dropped down to 17°C. (A receiving beep is heard.)

#### 5 Fan speed button (FAN)

Press this button to select fan speed. When you select AUTO, the fan speed is automatically adjusted according to the room temperature. You can also manually select the desired fan speed from among five settings.

(LOW , LOW<sup>+</sup> , MED , MED , MED<sup>+</sup> , HIGH , HIGH , HIGH , (A receiving beep is heard.)

#### 6 Auto louver button (SWING)

Press this button to swing the louver. (A receiving beep is heard.) Press the SWING button to stop the louver swinging. (A receiving beep is heard.)

#### 7 Set louver button (FIX)

Press this button to adjust the airflow direction. (A receiving beep is heard.) While this button is kept depressed, the receiving tone continuously sounds.

#### 8 Off timer button (OFF)

Press this button to set the OFF timer.

#### 9 On timer button (ON)

Press this button to set the ON timer.

#### 10 Reserve button (SET)

Press this button to reserve time settings. (A receiving beep is heard.)

#### 11 Cancel button (CLR)

Press this button to cancel ON timer and OFF timer. (A receiving beep is heard.)

#### 12 High power button (Hi POWER)

Press this button to start the high power operation. This function is not operated group control.

#### 13 PRESET button

Press this button to change the operation mode to the preferred operation mode memorized previously. To memorize the operation mode, press this button for at least 3 seconds during the preferred operation mode.

**P** is displayed and the operation mode is memorized.

#### 14 COMFORT SLEEP button

Press this button to start the OFF timer operation that automatically adjusts the room temperature and the fan speed.

You can select the OFF timer time from four durations (1, 3, 5 or 9 hours).

During group control operation, the set temperature and the fan speed are not automatically adjusted. Only off timer function is activated.

#### 15 QUIET button

Press this button to start quiet operation. Pressing this button again will restore normal operation.

# Names and functions of indications on wireless remote controller

## Display

All indications, except for clock time indication, are indicated by pressing the START/STOP \_\_\_\_\_button.



• In the illustration, all indications are indicated for explanation.

During operation, only the relevant indications will be indicated on the remote controller.

#### **1** Transmission mark

This transmission mark  $(\blacktriangle)$  indicates when the remote controller transmits signals to the indoor unit.

#### 2 Mode display

Indicates the current operation mode. (A : Auto changeover control,  $\stackrel{\text{l}}{\xrightarrow{}}$  : Cool,  $\stackrel{\text{(b)}}{\xrightarrow{}}$  : Dry,  $\stackrel{\text{(c)}}{\xrightarrow{}}$  : Heat,  $\stackrel{\text{(c)}}{\xrightarrow{}}$  : Fan only)

#### 3 Temperature display

Indicates the temperature setting (17°C to 30°C). When you set the operating mode to S: Fan only, no temperature setting is indicated.

#### 4 FAN speed display

Indicates the selected fan speed. AUTO or one of five fan speed levels (LOW , LOW , MED , MED , MED , MED , MED , HIGH , HIGH , HIGH , MED , can be indicated. Indicates , MICO when the operating mode is  $\circlearrowright$ : Dry.

#### 5 TIMER and clock time display

The time set for timer operation or clock time is indicated.

The present time is always indicated except for TIMER operation.

#### 6 Hi POWER display

Indicates when the high power operation starts. Press the Hi POWER button to start and press it again to stop the operation.

### 7 (PRESET) display

Indicated when memorizing the preferred operation mode or when it has been memorized. Also, this icon is indicated when the memorized preferred operation is displayed.

# 8 $G^{z^2}$ (COMFORT SLEEP) display

Indicated during the OFF timer operation that automatically adjusts the room temperature and the fan speed. Each time you press the COMFORT SLEEP button, the display changes in the sequence of 1h, 3h, 5h, and 9h.

# 9 🛞 (QUIET) display

Indicated during the quiet operation.

#### 10 Swing display

Indicated during the swinging operation where the horizontal louver automatically moves up and down.

#### NOTE

When both wired remote controller and wireless remote controller are used, display on the screen of wireless remote controller may differ from the actual operation in some cases.

## Preparation and check before use

- 1. Loading Batteries
  - Remove the battery cover.
  - Insert 2 new batteries (R03 [AAA]) following the (+) and (-) positions.
- 2. Removing Batteries
  - Remove the battery cover.
  - Remove the 2 used batteries.

### **Batteries**

- To replace the batteries, use two new batteries (R03 [AAA]).
- In normal use, the batteries will last about one year.
- Replace the batteries if there is no receiving beep from the indoor unit or when the air conditioner cannot be operated using the remote controller.
- To avoid malfunctions by battery leakage, remove the batteries when not using the remote controller for more than one month.
- Please dispose of the used batteries according to the local regulation.



# **4** ADJUSTING CLOCK

# Setting the clock

Before you start operating the air conditioner, set the clock of the remote controller using the procedures given in this section. The clock panel on the remote controller will indicate the time regardless of whether the air conditioner is in use or not.

# Initial setting

When batteries are inserted in the remote controller the clock panel will indicate AM 0:00 and will flash.



1 TIMER ↑ or ↓ button

Press the TIMER or or button to set the current

Each press of the TIMER button changes the time in one minute steps.

Pressing the TIMER button continually changes the time in ten minute steps.

## 2 SET 🖭 button

Press the SET E button. The current time is indicated and the clock starts.

# Clock adjusting



### **1** CLOCK button

Press the CLOCK • by tip of a pencil. The CLOCK display flashes.

2 TIMER ➡ or ➡ button

Press the TIMER  $\bigcirc$  or  $\bigcirc$  button to set the current time.

Each press of the TIMER button changes the time by one minute.

Pressing the TIMER button continually changes the time by ten minutes.

## 3 SET 🖭 button

Press the SET set button. The current time is indicated and the clock starts.

# **5** HANDLING THE REMOTE CONTROLLER

# 

- The air conditioner will not operate if curtains, doors or other materials block the signals from the remote controller to the indoor unit.
- Prevent any liquid from falling into the remote controller.

Do not expose the remote controller to direct sunlight or heat.

 If the infrared signal receiver on the indoor unit is exposed to direct sunlight, the air conditioner may not function properly. Use curtains to prevent the sunlight from reaching the receiver.

- If the room using the air conditioner has fluorescent lighting with electronic starters, signals may not be properly received. If you are planning to use such fluorescent lamps, consult your local dealer.
- If other electrical appliances react to the remote controller move these appliances or consult your local dealer.

# ■ Location of the remote controller

- Keep the remote controller where its signals can reach the receiver of the indoor unit (a distance of 7 m is allowed).
- When you select the timer operation, the remote controller automatically transmits a signal to the indoor unit at the specified time.

If you keep the remote controller in a position that hinders proper signal transmission, a time lag of up to 15 minutes may occur.



# Remote controller holder

#### Installing the remote controller holder

• Before you actually install the remote controller holder on a wall or pillar, check whether the remote controller signals can be received by the indoor unit.

# Mounting and removing the remote controller

• To mount the remote controller hold it parallel to the remote controller holder and push it in fully. To remove the remote controller slide the remote controller upwards and out from the holder.



# **6** HOW TO USE REMOTE CONTROLLER

# ■ Cooling/heating/fan only operation

## Start



## 1 START/STOP button (

Press this button to start the air conditioner.

2 Mode select button (MODE)

Select Cool 🌣, Heat 🔅, or Fan only 🟵.

**3** Temperature button (

Set the desired temperature. When the air conditioner is in FAN ONLY operation, the temperature display is not indicated.

#### 4 Fan speed button (FAN)

- The O OPERATION lamp on the display panel of the indoor unit goes on. And operation starts after approximately 3 minutes. (If you select FAN ONLY mode, the unit will start immediately.)
- The 🟵 : Fan only mode does not control temperature.
- Fan speed AUTO is the same as HIGH

Therefore, perform only steps **1**, **2** and **4** to select this mode.

# Stop

### START/STOP button (

Press this button again to stop the air conditioner.

### NOTE

When the indoor unit is operated together with a cooling only outdoor model outdoor unit,  $\dot{Q}$  appears on the remote controller but the heating operation is disabled.

## Dry operation

### Start



1 START/STOP button (

Press this button to start the air conditioner.

- 2 Mode select button (MODE) Select Dry Ø.
- **3** Temperature button ( ) Set the desired temperature.
- The fan speed display indicates AUTO.
- The O OPERATION lamp on the display panel of the indoor unit lights, and operation starts after approximately 3 minutes.

# Stop

### START/STOP button (

Press this button again to stop the air conditioner.

# Automatic operation (auto changeover)

This function is available only for use in combination with a heat recovery model outdoor unit. If this function is used with another model of outdoor unit, "A" (Auto) appears on the remote controller but the automatic operation is disabled.

## Start



1 START/STOP button (

Press this button to start the air conditioner.

- **2** Mode select button (MODE) Select A.
- **3** Temperature button ( ) Set the desired temperature.
- **4** Fan speed button (FAN) Select one of **AUTO** LOW ■, LOW<sup>+</sup> ■ ■, MED ■ ■ ■, MED<sup>+</sup> ■ ■ ■ ■ ■, HIGH ■ ■ ■ ■
- The O OPERATION lamp on the display panel of the indoor unit lights.

The operating mode is selected in accordance with the room temperature and operation starts after approximately 3 minutes.

• If the "A" mode is uncomfortable, you can select the desired conditions manually.

# Stop

# START/STOP button (

Press this button again to stop the air conditioner.

# 

#### Disagreement in operation mode

If you select AUTOMATIC OPERATION in a model with no auto-changeover (cooling/heating) control setting or if you select HEAT in a Cool Only model,

O lamp lights up and O and D lamps blink alternately with an alarm sound (pi, pi) from the air conditioner due to disagreement in operation mode. Change the operation mode with the MODE button on the wireless remote controller. This disagreement indication cannot be deleted by the wired remote controller.

# Timer operation

Use the wired remote controller for timer setting if it is also in use.

# ON timer and OFF timer



### Setting TIMER



Press the ON or OFF TIMER buttons as required.

• The previous timer setting is displayed and flashes along with ON/OFF timer display.

Set the timer to the desired time.

Each press of the TIMER button changes the time in ten minute steps.

Pressing the TIMER button continually changes the time in one hour step.

### 2 SET 🖭 button

Press the SET **SET** button to set the timer. The timer time is indicated and the timer starts.

#### Cancelling TIMER

### 3 CLR 🔤 button

Press the CLR Le button to cancel the timer setting.

# 

- When you select the timer operation, the remote controller automatically transmits the timer signal to the indoor unit at the specified time. Therefore, keep the remote controller in a location where it can transmit the signal to the indoor unit properly. Otherwise, the time lag of up to 15 minutes will occur.
- If you do not press the SET I button within 30 seconds after setting the time, the setting will be cancelled.

Once you select the timer operation mode, the settings are saved in the remote controller. Thereafter, the air conditioner will start operating under the same conditions when you simply press the ON/OFF button of the remote controller.

If the clock display is flashing, you cannot set the timer.

Follow the instructions in the section "SETTING THE CLOCK" and then set the timer.

# Combined timer (Setting both ON and OFF timers simultaneously)

#### OFF timer → ON timer

#### (Operation $\rightarrow$ Stop $\rightarrow$ Operation)

This feature is useful when you want to stop the air conditioner after you go to sleep, and start it again in the morning when you wake up or you return home.

Example:

To stop the air conditioner and start it again next morning.



# Setting combined TIMER

- 1. Press the OFF TIMER button to adjust the OFF timer.
- 2. Press the ON TIMER button to adjust the ON timer.
- 3. Press the SET **■** button.

#### ON timer → OFF timer

#### (Stop $\rightarrow$ Operation $\rightarrow$ Stop)

You can use this setting to start the air conditioner when you wake up and stop it when you leave the house.

#### Example:

To start the air conditioner next morning and stop it.



## ▼ Setting combined TIMER

- 1. Press the ON TIMER button to adjust the ON timer.
- 2. Press the OFF TIMER button to adjust the OFF timer.
- 3. Press the SET **■** button.
- Either ON or OFF timer function which is closer to the current time, is activated first.
- If the same time is set for both ON and OFF timers, no timer operation is performed. Also, the air conditioner may stop operating.

### Every day combined timer (setting both ON and OFF timer simultaneously and activate every day.)

This feature is useful when you want to use combined timer at the same time every day.

## ▼ Setting combined TIMER

- 1. Press the ON TIMER button to adjust the ON timer.
- 2. Press the OFF TIMER button to adjust the OFF timer.
- 3. Press the SET **ET** button.
- After step 3, an arrow mark (1 or ↓) flashes for about 3 seconds and during this flashing, press the SET I button.
- During the every day timer is activating, both arrows (♠, ♥) are indicated.

# Cancel the timer operation

Press the CLR CLR button.

# **Clock display**

During the TIMER operation (ON-OFF, OFF-ON, OFF timer) clock display is disappeared so as to show the setting time. To see the present time, press SET button briefly and the present time is displayed about 3 seconds.

# High power operation

# High power (Hi POWER)

 The Hi POWER (high power operation) mode automatically controls room temperature, airflow and operation mode so that the room is quickly cooled in summer and warmed in winter.



## Setting Hi POWER mode

#### **1** Hi POWER button

Press the Hi POWER button after starting any operation. At the same time, the "Hi POWER" mark on the remote controller is indicated.

### **Cancelling Hi POWER mode**

#### **1** Hi POWER button

Press the Hi POWER button once again. At the same time, the "Hi POWER" mark on the remote controller goes out.

# 

- The Hi POWER mode cannot be activated in the OPY and FAN ONLY operation and when the ON TIMER operation is reserved.
- Hi POWER mode is not available for group control.

When Hi POWER is transmitted to the Header indoor unit, the receiving sound is heard but the Hi POWER mode will not be performed. Please cancel the Hi POWER mode.

## Quiet operation

• The QUIET mode provides quiet operating status by automatically setting the fan speed to the lowest speed.



## Setting QUIET mode

#### 1 QUIET button

Press the QUIET button after starting any operation. At the same time, the O mark is indicated.

## **Cancelling QUIET mode**

#### 1 QUIET button

Press the QUIET button once again. At the same time, the mark on the remote controller disappears.



The QUIET mode cannot be activated in the  $\bigotimes$  DRY operation.

## NOTE

Under certain conditions, the quiet operation may not provide adequate cooling or heating due to the feature of quietness.

# Preset Operation

Set your preferred operation mode for future use. The setting is memorized by the unit for future operation (except airflow direction).



Select your preferred operation.

**1** Press the PRESET button for 3 seconds to memorize the setting.

The P mark is displayed.

When you press this button next time, the memorized operation mode will be enabled.

# Comfort sleep operation

COMFORT SLEEP mode is a OFF timer operation with automatic temperature and fan speed adjustment.



#### **1** Press the COMFORT SLEEP button.

Select 1, 3, 5 or 9 hours for the OFF timer operation.

# 

The COMFORT SLEEP mode is not enabled in the DRY or 🟵 FAN ONLY operation.

### NOTE

- For the cooling operation, the set temperature will automatically increase 1 degree/hour for 2 hours (maximum 2 degrees increase). For the heating operation, the set temperature will decrease.
- During group control operation, the set temperature and the fan speed are not automatically adjusted. Only off timer function is activated.

# Adjusting airflow direction

- Adjust the airflow direction properly. Otherwise, it might cause discomfort and make the room temperature uneven.
- Adjust the vertical airflow using the remote controller.
- · Adjust the horizontal airflow manually.

## Adjust the vertical airflow

The air conditioner automatically adjusts the vertical airflow direction in accordance with the operating conditions when AUTO or A mode is selected.

#### To set the airflow direction you desire

Perform this function when the air conditioner is in operation.



#### **1** FIX button

Keep pressing or pressing briefly the FIX button on the remote controller to move the louver in the desired direction.

 In subsequent operations, the vertical airflow is automatically set in the direction to which you adjusted the louver using the FIX button.

#### NOTE

Operating angle of vertical airflow louver will be different during cooling, dry and heating operation.

#### To automatically swing the airflow direction

Perform this function when the air conditioner is in operation.



#### **1** SWING button

- Press the SWING button on the remote controller.
- To stop the function, press the SWING button.

# 

- The FIX and SWING buttons will be disabled when the air conditioner is not in operation (including when the ON timer is set).
- Do not operate the air conditioner for long hours with the airflow direction set downward during the cooling or dry operation.
   Otherwise, condensation may occur on the surface of the vertical airflow louver and cause dew dripping.
- Do not move the vertical airflow louver manually. Always use the FIX button. If you move the louver manually, it may malfunction during operation.

If the louver malfunctions, stop the air conditioner once, and restart.

- When the air conditioner is started immediately after it was stopped, the vertical airflow louver might not move for 10 seconds or so.
- Louver operation is limited when performing group control. (see page 16)

# Adjust the horizontal airflow

## Preparation

- Take hold of the lever on the horizontal airflow louver and move them to adjust the airflow direction as required.
- You can adjust the airflow at the left, and right locations of the louver.



# 7 LIMITED OPERATION BY GROUP CONTROL

# NOTE

Group control: Operate air conditioners in more than one system in same time.

Header indoor unit: The representative unit during group control. Receive commands from wired remote controller and transmit the commands to follower units.

(Header indoor unit is indoor unit that receives START/STOP signal from the wireless remote control.) Follower indoor unit: Indoor units other than the Header unit are called follower unit.

A wired remote controller (separately available) is required for the group control.

#### ▼ Example of group combination



# 

When using indoor unit in group control,

#### 1. Hi POWER operation will not function.

When Hi POWER is transmitted from wireless remote controller the receiving sound will be heard from the indoor unit and display on the wireless remote controller will also change. However, the indoor unit does not operate Hi POWER operation. Restore the display on the wireless remote controller pushing Hi POWER button.

#### 2. COMFORT SLEEP

When COMFORT SLEEP is transmitted from wireless remote controller, the receiving sound will be heard from the indoor unit and the display on the wireless remote controller will also be changed as same as Hi POWER operation. However, the set temperature and the fan speed will not be automatically adjusted. Only off timer function is activated.

# 3. Units other than the Header unit cannot be operated with remote controller and the TEMPORARY operation.

When operating air conditioner with wireless remote controller transmission should be sent to the Header unit.

Header and follower indoor units are decided through address setting upon installation. Follower unit will not receive any signals from wireless remote controller.

Air conditioner will not work even if the [RESET] button on the follower unit is pressed.

(Some Follower units may receive SWING and FIX, but these operations are performed only on the unit that received the signal.)

(When wireless remote controller is used, only the Header unit receives SWING signal. If the SWING signal is transmitted to follower unit, the sound to refuse receiving signal (3 beeps) is heard and the follower unit does not receive the signal.

For FIX operation, both Header and follower unit perform the operation by itself. When wired remote controller is used, airflow direction can be changed on each unit by selecting the indoor unit.)

#### 4. TIMER lamp lights up only on the Header unit.

When the timer is set with wired remote controller, even the TIMER lamp on the Header unit will not light up.

# $\boldsymbol{8}$ AUTO RESTART OPERATION

This air conditioner is equipped with an Automatic restarting facility which allows the air conditioner to resume the set operating conditions in the event of a supply power shutdown without the use of the remote controller.

The operation will resume without warning three minutes after the power is restored.

## NOTE

The Auto Restart Operation is not set to work on shipment from the factory, and so it is necessary to set it to function as required.

### ♦ How to set the auto restart

To set the auto restart function, proceed as follows: The power supply to the unit must be on the function will not set if the power is off. To enable the auto restart function, push the [RESET] button continually for more than 3 seconds, less than 10 seconds. The air conditioner will acknowledge the setting and beep 2 times (first long, second short sound) and  $\bigcirc$  lamp is flashing 5 seconds (5 Hz). The system will now restart automatically. The above auto restart settings can be carried out:



#### How to cancel the auto restart

To cancel the auto restart operation, proceed as follows:

Repeat the setting procedure: the air conditioner will acknowledge the instruction and beep 2 times (first long, second short sound).

The air conditioner will now require to be manually restarted with the remote controller after the main supply is turned off.

Cancellation is carried out:



# **9** HOW THE AIR CONDITIONER WORKS

### Automatic operation

- The air conditioner selects and operates in one of the operating modes of cooling, heating or fan only, depending on the room temperature and setting temperature.
- If the AUTO mode is uncomfortable, the desired conditions can be selected manually.

# **Hi POWER operation**

When the Hi-POWER button is pushed during cooling, heating or AUTO operation, the air conditioner will start the following operation.

- Cooling operation Performs the cooling operation at 1°C lower than the setting temperature. Only when the fan speed before the Hi POWER operation is not high, the fan speed will be increased.
- Heating operation Performs the heating operation at 2°C higher than the setting temperature.
   Only when the fan speed before the Hi POWER operation is not high, the fan speed will be increased.

## **COMFORT SLEEP operation**

When the COMFORT SLEEP button is pushed during cooling, heating, or AUTO operation, the air conditioner will start the OFF timer operation that automatically adjusts the room temperature and the fan speed (expect in DRY, FAN ONLY and TIMER mode).

You can select the OFF timer time from four durations (1, 3, 5 or 9 hours).

During group control operation, the set temperature and the fan speed are not automatically adjusted. Only off timer function is activated.

## **QUIET** operation

When the QUIET button is pushed during cooling, heating, or AUTO operation, the air conditioner will start the following operation.

To operate super low fan speed for quite operation (expect in DRY mode)

# **DRY** operation

This operation is performed when the room temperature is higher than the set temperature.

The temperature is regulated while dehumidifying by repeated turning on and off of the cooling operation or fan only operation. Increase of using wireless remote controller, the fan speed display will indicate AUTO and low speed will be used.



Air flow adjustment

Blows downward

# **10** HINTS FOR ECONOMICAL OPERATION

# Maintain room temperature at comfortable level

## **Clean air filters**

The clogged air filters impairs the performance of the air conditioner. Clean them once two weeks.

# Never open doors and windows more often than necessary

To keep cool or warm air in the room, never open doors and windows more often than necessary.

## Window curtains

In cooling, close the curtains to avoid direct sunlight. In heating, close the curtains to keep the heat in.

## Use the timer effectively

Set the timer for the desired operating time.

## Get uniform circulation of room air

Adjust airflow direction for even circulation of room air.



# **11** TEMPORARY OPERATION

# TEMPORARY operation

This function is used to operate the unit temporarily in case you misplace the wireless remote controller or its batteries are exhausted.

- Push the [RESET] button once (less than 3 seconds) to start the air conditioner.
- The last operation conducted with the wireless remote controller will be performed. (When wireless remote controller is not used, models with the auto-changeover (cooling/heating) function perform "A" operation, and those without the function perform cooling operation (set temperature: 24°C, fan: HIGH).)



A CAUTION

Continuous pressing of the [RESET] button for 10 seconds and above will start the forced cooling operation.

(This will impose burden on the air conditioner. Do not perform this for the purposes other than test run.) In this time all indicators of indoor unit go on.

# **12** MAINTENANCE

# 

Before cleaning the air conditioner, to turn off the circuit breaker or main power switch.

After the cooling or dry auto (cooling) operation has finished, the self clean operation is performed and the fan starts running. Before cleaning the unit, stop the self clean operation forcibly and turn off the circuit breaker to avoid electric shock.

To clean the air filter and the air intake grille, do not remove them at the same time. You may touch the aluminum fin of the unit and result in injury.

# ■ Cleaning of indoor unit and remote controller

# 

- Use a dry cloth to wipe the indoor unit and remote controller.
- A cloth dampened with cold water may be used on the indoor unit if it is very dirty.
- Never use a damp cloth on the remote controller.
- Do not use a chemically-treated duster for wiping or leave such materials on the unit for long. It may damage or fade the surface of the unit.
- Do not use benzine, thinner, polishing powder, or similar solvents for cleaning.

These may cause the plastic surface to crack or deform.



#### If you will not use the unit for at least 1 month

- 1. Operate the air conditioner in FAN ONLY mode for about half a day to dry the inside of the unit.
- 2. Stop the air conditioner and turn off the main power switch.
- 3. Remove the batteries from the remote controller.



# 

- · Check that the air filters are installed.
- · Check that the air outlet or inlet of the outdoor unit is not blocked.

# Cleaning the air filter

Clean the air filters every 2 weeks. If the air filters are covered with dust, the performance of the air conditioner will deteriorate.

Clean the air filters as often as possible.

- 1. Open the air inlet grille.
  - Lift the air inlet grille up to the horizontal position.



2. Take hold of the left and right handles of the air filter and lift it up slightly, then pull it downward to take it out from the filter holder.



 Use a vacuum cleaner to remove the dust from the filters or wash them with water. If you wash the air filters, dry them in the shade.



4. Insert the upper portion of air filter confirming to fit its right and left edges on the indoor unit until it is firmly set.



5. Close the air inlet grille.

# ■ Cleaning the air inlet grille

 Remove the air inlet grille. Hold the two sides of the air inlet grille and open upwards.



- Wash it with water using a soft sponge or towel. (Do not use metallic scrubbing brush or other hard brushes.)
  - Use of such hard objects will cause scratches on the surface of the grille, and the metal coating to peel off.
  - If very dirty, clean the air inlet grille with a neutral detergent for kitchen use, and rinse it off with water.

- 3. Wipe out water from the air inlet grille and dry it.
- 4. Fit the left and right arms of the air inlet grille to the shafts on the two sides of the air conditioner and push in completely.



- 5. Close the air inlet grille.
  - Push the arrow locations (Four) at the bottom of the air inlet grille to check whether the grille is completely closed.



- When not used for a long time
- 1. Perform the fan operation for a couple of hours to dry inside.
- 2. Push button on the remote controller to stop running, and turn off the circuit breaker.
- 3. Clean the air filters and reinstall them.

Before the cooling season

Clean the drain pan

Contact the dealer where you purchased the product.

(Drain does not work if the drain pan or vent is clogged. In some cases the drain may overflow and wet the wall or floor. Clean the drain pan before the cooling season.)

#### Check periodically

- If the unit is used for a long time, parts may deteriorate and cause malfunction or bad drainage of dehumidified water depending on the heat, humidity, or dust.
- In addition to the usual maintenance, it is recommended that you have the unit checked and maintained by the dealer where you purchased it.

#### NOTE

For environmental conservation, it is strongly recommended that the indoor and outdoor units of the air conditioner in use be cleaned and maintained regularly to ensure efficient operation of the air conditioner.

When the air conditioner is operated for a long time, periodic maintenance (once a year) is recommended. Furthermore, regularly check the outdoor unit for rust and scratches, and remove them or apply rustproof treatment, if necessary. As a general rule, when an indoor unit is operated for 8 hours or more daily, clean the indoor unit and outdoor unit at least once every 3 months. Ask a professional for this cleaning / maintenance work. Such maintenance can extend the life of the product though it involves the owner's expense. Failure to clean the indoor and outdoor units regularly will result in poor performance, freezing, water leakage, and even compressor failure.

# Maintenance List

| Part                                 | Unit             | Check (visual / auditory)                                                      | Maintenance                                                                                                                                |
|--------------------------------------|------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Heat<br>exchanger                    | Indoor / outdoor | Dust / dirt clogging,<br>scratches                                             | Wash the heat exchanger when it is clogged.                                                                                                |
| Fan motor                            | Indoor / outdoor | Sound                                                                          | Take appropriate measures when abnormal sound is generated.                                                                                |
| Filter Indoor Dust / dirt, breakage  |                  | Dust / dirt, breakage                                                          | <ul><li>Wash the filter with water when it is contaminated.</li><li>Replace it when it is damaged.</li></ul>                               |
| Lean Indoor I                        |                  | <ul><li>Vibration, balance</li><li>Dust / dirt, appearance</li></ul>           | <ul> <li>Replace the fan when vibration or<br/>balance is terrible.</li> <li>Brush or wash the fan when it is<br/>contaminated.</li> </ul> |
| Air intake /<br>discharge<br>grilles |                  | Dust / dirt, scratches                                                         | Fix or replace them when they are deformed or damaged.                                                                                     |
| Drain pan                            | Indoor           | Dust / dirt clogging, drain contamination                                      | Clean the drain pan and check the downward slope for smooth drainage.                                                                      |
| Ornamental<br>panel,<br>louvers      | Indoor           | Dust / dirt, scratches                                                         | Wash them when they are contaminated or apply repair coating.                                                                              |
| Exterior outdoor                     |                  | <ul> <li>Rust, peeling of insulator</li> <li>Peeling / lift of coat</li> </ul> | Apply repair coating.                                                                                                                      |

# **13** TROUBLES AND CAUSES

For contents of the outdoor unit, combinations, etc., refer to the owner's manual supplied with the outdoor unit.

# 

If any of the following conditions occur, stop the air conditioner immediately, set to off the main power switch and contact the dealer:

- Switch operation are erratic.
- The main power fuse often blows out, or the circuit breaker is often activated.
- Foreign matter or water has fallen inside the air conditioner.
- Any other unusual condition is observed.
- Abnormal display appears on the remote controller display while using wired remote controller.

#### Before you ask for servicing or repairs, check the following points.

# ▼ Recheck Inoperative

- The power main switch is turned off. (Indoor)
- The circuit breaker is activated to cut off the power supply.
- The main power fuse has blown out.
- · Stoppage of electric current.
- The batteries in the remote controller are exhausted.
- ON TIMER is set.
- Signal is sent to the follower indoor unit with the remote controller. (see page 16)
- Operation of the indoor unit is limited by the wired remote controller that is controlling some other system. (When signal is transmitted, warning sound (5 beeps) will be heard.)
- Disagreement in operation mode occurred. (When the operation mode disagrees, the "O OPERATION" lamp lights up, and the

"O TIMER" and " Important Preheat/Defrost" lamps blink alternately with an alarm sound.) (see page 4)

#### Poor cooling or heating performance

- · Doors or windows are opened.
- The air filter is clogged with dust.
- · The louver is not at the correct position.
- The fan speed is set to low.
- The air conditioner is set in the QUIET or  $\oslash$  DRY mode.
- The set temperature is too high. (In cooling operation)
- The set temperature is too low. (In heating operation)
- (Only when the air is not cooled even during cooling operation) When another indoor unit in the same system is heating.







# ▼ These are not failures.

## The back of indoor unit is dewed.

 Dewdrops on the back of the indoor unit are automatically collected and drained out.

## Indoor unit or outdoor unit makes a strange noise.

- When temperature sharply changes, the indoor or outdoor unit occasionally makes a strange noise because of expansion/contraction of parts or change of refrigerant flow.
- When louver is operating in SWING mode, airflow noise tone may be changed. It cause by airflow direction is continuing changed.

# The room air is smelly.

## A bad odor comes from the air conditioner.

• Smells impregnated in the wall, carpet, furniture, clothing, or furs, are coming out.

# Louver does not work in the FIX or SWING mode.

• The FIX and SWING modes are restricted under the group control. (see page 16)

# Fan and louvers of the indoor unit moves when the unit is not operated.

• When the other indoor unit(s) is operating within the system, a fan of switched off indoor unit may temporary operate.

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| Symptom              |                              | •                                                                           | Cause                                                                                                                                                                                                                                                                                                                                                                       |  |  |
|----------------------|------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| It is not a failure. | Outdoor<br>unit              | White, misty, cold air or water<br>comes out     Sometimes the noise of air | <ul> <li>The fan of the outdoor unit is automatically stopped<br/>and defrosting is performed.</li> <li>The solenoid valve works when defrosting starts or</li> </ul>                                                                                                                                                                                                       |  |  |
|                      |                              | leaking is heard.                                                           | <ul> <li>The solehold valve works when delrosting starts of<br/>stops.</li> </ul>                                                                                                                                                                                                                                                                                           |  |  |
|                      |                              | <ul> <li>A noise is heard when the<br/>power is turned on.</li> </ul>       | <ul> <li>The outdoor unit is preparing for running.</li> </ul>                                                                                                                                                                                                                                                                                                              |  |  |
|                      | Indoor<br>unit               | <ul> <li>Sometimes a swishing is<br/>heard.</li> </ul>                      | <ul> <li>When the unit starts running, during operation, or<br/>immediately after the unit stops running, a sound<br/>such as water flowing may be heard, or the operation<br/>sound may become louder for a couple of minutes<br/>immediately after the unit starts running. This is the<br/>sound of the refrigerant flowing or the dehumidifier<br/>draining.</li> </ul> |  |  |
|                      |                              | <ul> <li>A clacking sound is heard.</li> </ul>                              | <ul> <li>This is a sound generated when the heat exchanger<br/>or other part expands and contracts slightly due to<br/>temperature change.</li> </ul>                                                                                                                                                                                                                       |  |  |
|                      |                              | <ul> <li>Discharged air smells unusual.</li> </ul>                          | <ul> <li>Various smells from the walls, carpet, clothes,<br/>cigarette, cosmetics or other things adhere to the air<br/>conditioner.</li> </ul>                                                                                                                                                                                                                             |  |  |
|                      |                              | • The fan continues running<br>even after the unit operation is<br>stopped. | <ul> <li>The fan keeps running to self clean the heat<br/>exchanger during drying.</li> </ul>                                                                                                                                                                                                                                                                               |  |  |
|                      | The unit does not run.       |                                                                             | <ul> <li>Has a blackout occurred?</li> <li>Has the circuit breaker blown?</li> <li>Has the protective device been activated?<br/>(The operation indicator and  ron the remote controller are blinking.)</li> </ul>                                                                                                                                                          |  |  |
| Check again.         | The room does not cool down. |                                                                             | <ul> <li>Is the air intake or discharge of the outdoor unit clogged?</li> <li>Is a door or window open?</li> <li>Is the air filter clogged with dust?</li> <li>Is the air volume set to "LOW"? or is the operation mode set to "FAN"?</li> <li>Is the setup temperature appropriate?</li> </ul>                                                                             |  |  |

Check the points described below before requesting repair.

If there is something unusual even after checking the above, stop running the unit, turn off the circuit breaker, and inform the dealer where you purchased the product of the product number and symptom. Do not attempt to repair the unit by yourself as doing so is dangerous. If the check indicator (e.g. E0 I, F0 I, H0 I) is displayed on the remote controller LCD, inform the dealer of its content as well.

If any of the following occur, stop running the unit immediately, turn off the circuit breaker, and contact the dealer where you purchased the product.

- · The switch does not work properly.
- · The circuit breaker often blows out.
- You unintentionally put a foreign object or water inside.
- The unit cannot be run even after the cause of the protective device activation is removed.
- Other unusual conditions are found.

# **14** OPERATIONS AND PERFORMANCE

#### Check before running

- · Check whether the earth wire is cut or disconnected.
- Check whether the air filter is installed.
- Turn on the circuit breaker 12 hours or more before starting operation.

#### ▼ 3 minutes protection function

3-minutes protection function prevents the air conditioner from starting for initial 3 minutes after the main power switch / circuit breaker is turned on for re-starting the air conditioner.

#### Power failure

Power failure during operation will stop the unit completely.

- To restart the operation, push the ON / OFF button on the remote controller.
- Lightning or a wireless car telephone operating nearby may cause the unit to malfunction. Turn off the main power switch or circuit breaker and then turn them on again. Push the ON / OFF button on the remote controller to restart.

#### Defrosting operation

- If the outdoor unit is frosted during the heating operation, defrosting starts automatically (for approximately 2 to 10 minutes) to maintain the heating capacity.
- The fans in both indoor and outdoor units will stop during the defrosting operation.
- During the defrosting operation, the defrosted water will be drained from the bottom plate of the outdoor unit.

#### ▼ Heating capacity

In the heating operation, the heat is absorbed from the outside and brought into the room. This way of heating is called heat pump system. When the outside temperature is too low, it is recommended to use another heating apparatus in combination with the air conditioner.

#### ▼ Protective device

- Stops operation when the air-conditioner is overloaded.
- If the protective device is activated, the unit stops running, and the operation indicator and check indicator on the remote controller blink.

#### ▼ If the protective device is activated

- Turn off the circuit breaker and perform a checkup. Continued running may cause a malfunction.
- Check whether the air filter is installed. If not, the heat exchanger may be clogged with dust and water leakage may occur.

#### ▼ During cooling

- The air intake or discharge of the outdoor unit is clogged.
- · Strong wind continuously blows against the discharge of the outdoor unit.

#### ▼ During heating

- The air filter is clogged with a large amount of dust.
- The air intake or discharge of the indoor unit is clogged.

#### ▼ Do not turn off the circuit breaker

 During the air-conditioning season, leave the circuit breaker turned on, and use the ON / OFF key on the remote controller.

#### ▼ Attention to snowfall and freeze on the outdoor unit

- In snowy areas, the air intake and air discharge of the outdoor unit are often covered with snow or frozen up. If snow or freeze on the outdoor unit is left as it is, it may cause machine failure or poor warming.
- In cold areas, pay attention to the drain hose so that it perfectly drains water without water remaining inside for freeze prevention. If water freezes in the drain hose or inside the outdoor unit, it may cause machine failure or poor warming.

# **15** INSTALLATION

#### • Do not install the air conditioner in the following places

- Do not install the air conditioner in any place within 1 m from a TV, stereo, or radio set. If the unit is installed in such place, noise transmitted from the air conditioner affects the operation of these appliances.
- Do not install the air conditioner near a high frequency appliance (such as sewing machine or massager for business use), otherwise the air conditioner may malfunction.
- Places where iron or other metal dust is present. If iron or other metal dust adheres to or collects on the interior of the air conditioner, it may spontaneously combust and start a fire.
- Do not install the air conditioner in a humid or oily place, or in a place where steam, soot, or corrosive gas is generated.
- Do not install the air conditioner in a salty place such as seaside area.
- Do not install the air conditioner in a place where a great deal of machine oil is used.
- Do not install the air conditioner in a place where it is usually exposed to strong wind such as in seaside area.
- Do not install the air conditioner in a place where sulfureous gas generated such as in a spa.
- Do not install the air conditioner in a vessel or mobile crane.
- Do not install the air conditioner in an acidic or alkaline atmosphere (in a hot-spring area or near a chemicals factory, or in a place subject to combustion emissions). Corrosion may be generated on the aluminum fin and copper pipe of the heat exchanger.
- Do not install the air conditioner near an obstacle (such as air vent, lighting equipment) that disturbs discharge air. (Turbulent airflow may reduce the performance or disable devices.)
- Do not use the air conditioner for special purposes such as preserving food, precision instruments, or art objects, or where breeding animals or growing plants are kept. (This may degrade the quality of preserved materials.)
- Do not install the air conditioner over an object that must not get wet. (Condensation may drop from the indoor unit at a humidity of 80% or more or when the drain port is clogged.)
- Do not install the air conditioner in a place where an organic solvent is used.
- Do not install the air conditioner near a door or window subject to humid outside air. Condensation may form on the air conditioner.
- Do not install the air conditioner in a place where special spray is used frequently.

### • Be careful with noise or vibrations

- Do not install the air conditioner in a place where noise by outdoor unit or hot air from its air discharge annoys your neighbours.
- Install the air conditioner on a solid and stable foundation so that it prevents transmission of resonating, operation noise and vibration.
- If one indoor unit is operating, some sound may be audible from other indoor units that are not operating.

# **16** SPECIFICATIONS

| Madal            | Sound pressure level (dBA) |         |             |
|------------------|----------------------------|---------|-------------|
| Model            | Cooling                    | Heating | Weight (kg) |
| RAV-HM1101KRTP-E | *                          | *       | 19          |

\* Under 70 dBA

Product information of ecodesign requirements. (Regulation (EU) 2016/2281) http://ecodesign.toshiba-airconditioning.eu/en

# Declaration of Conformity

Manufacturer: CARRIER AIR CONDITIONING (THAILAND) CO., LTD. 144/9 MOO 5, BANGKADI INDUSTRIAL PARK, TIVANON ROAD, TAMBOL BANGKADI, AMPHUR MUANGPATHUMTHANI, PATHUMTHANI 12000, THAILAND

TCF holder: Carrier RLC Europe S.A.S Immeuble Le Cristalia 3 rue Joseph Monier 92500 Rueil-Malmaison FRANCE

Hereby declares that the machinery described below:

Generic Denomination: Air Conditioner

Model / type: RAV-HM1101KRTP-E

Commercial name: Digital Inverter Series/Super Digital Inverter Series Air Conditioner

Complies with the provisions of the Machinery Directive (Directive 2006/42/EC) and the regulations transposing into national law

Name:Kazunari WatanabePosition:GM, Quality Assurance Dept.Date:2 May, 2024Place Issued:Thailand

#### NOTE

This declaration becomes invalid if technical or operational modifications are introduced without the manufacturer's consent.

# **Declaration of Conformity**

| Manufacturer: | CARRIER AIR CONDITIONING (THAILAND) CO., LTD.<br>144/9 MOO 5, BANGKADI INDUSTRIAL PARK, TIVANON ROAD, TAMBOL BANGKADI,<br>AMPHUR MUANGRATHUMTHANI, RATHUMTHANI 12000, THAILAND |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | AMPHUR MUANGPATHUMTHANI, PATHUMTHANI 12000, THAILAND                                                                                                                           |

TCF holder: Carrier Solutions UK Ltd. Porsham Close, Belliver Industrial Estate, PLYMOUTH, Devon, PL6 7DB, United Kingdom

Hereby declares that the machinery described below:

Generic Denomination: Air Conditioner

Model / type: RAV-HM1101KRTP-E

Commercial name: Digital Inverter Series/Super Digital Inverter Series Air Conditioner

Complies with the provisions of the Supply of Machinery (Safety) Regulations 2008

| Name:         | Kazunari Watanabe           |
|---------------|-----------------------------|
| Position:     | GM, Quality Assurance Dept. |
| Date:         | 2 May, 2024                 |
| Place Issued: | Thailand                    |

### NOTE

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# CARRIER AIR CONDITIONING (THAILAND) CO., LTD.

144/9 MOO 5, BANGKADI INDUSTRIAL PARK, TIVANON ROAD, TAMBOL BANGKADI, AMPHUR MUANGPATHUMTHANI, PATHUMTHANI 12000, THAILAND