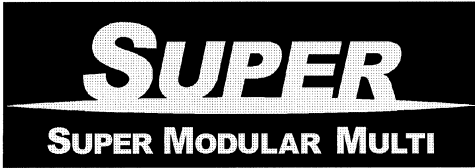




TOSHIBA

Leading Innovation >>>



Owner's Manual

Outdoor Unit

Heat Pump Model (Inverter Unit):

- MMY-MAP0501HT8-E**
- MMY-MAP0601HT8-E**
- MMY-MAP0801HT8-E**
- MMY-MAP1001HT8-E**
- MMY-MAP1201HT8-E**

Cooling Only Model (Inverter Unit):

- MMY-MAP0501T8-E**
- MMY-MAP0601T8-E**
- MMY-MAP0801T8-E**
- MMY-MAP1001T8-E**
- MMY-MAP1201T8-E**

For commercial use
 Pour usage commercial
 Nur für gewerbliche Nutzung
 Per uso commerciale
 Para uso comercial
 Para uso comercial
 Voor commercieel gebruik
 Για εμπορική χρήση
 Для коммерческого использования
 Ticari kullanımlar için

Owner's manual Super Modular Multi	1	English
Manuel du propriétaire Super Multi Modulaire	25	Français
Betriebsanleitung Modulares Super-Multi-System	49	Deutsch
Manuale del proprietario Multi Super Modulare	73	Italiano
Manual del propietario Múltiple Súper Modular	97	Español
Manual do utilizador Multi Super Modular	121	Português
Gebruiksaanwijzing Modulair Super Multi-systeem	145	Nederlands
Εγχειρίδιο χρήσης Πολυδιαίρουµενη µονάδα Super Multi	169	Ελληνικά
Руководство пользователя Многомодульная многофункциональная система	193	Русский
Kullanım Kılavuzu Süper Modüler Çoklu	217	Türkçe

Thank you very much for purchasing TOSHIBA 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.

ADOPTION OF NEW REFRIGERANT

This Air Conditioner adopts a new refrigerant HFC (R410A) instead of the conventional refrigerant R22 in order to prevent destruction of the ozone layer.

This appliance is not intended for use by person (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

CONTENTS

1	PRECAUTIONS FOR SAFETY	2
2	PARTS NAME	4
3	PARTS NAME OF REMOTE CONTROLLER	7
4	CORRECT USAGE	10
5	ADJUSTMENT OF WIND DIRECTION	11
6	TIMER OPERATION	16
7	INSTALLATION	17
8	MAINTENANCE	18
9	AIR CONDITIONER OPERATIONS AND PERFORMANCE	22
10	WHEN THE FOLLOWING SYMPTOMS ARE FOUND	23

1 PRECAUTIONS FOR SAFETY

WARNING

[Warning on installation]

Be sure to leave the installation work to the dealer or a store specializing.

The exclusive knowledge and technology are required for installation work.

Do not perform installation by yourself.

If an incomplete installation is performed, a fire, electric shock, injury, or water leakage may be caused.

Be sure to use the products sold separately which are specified by us.

For the products sold separately, be sure to use those specified by us.

Otherwise, a fire, electric shock, or water leakage may be caused.

For installation work, leave it to special engineer.

When installing the units in a small room, take measures so that the refrigerant will not exceed the critical concentration if it leaks.



CAUTION

Related to countermeasures against the critical concentration, perform the installation work upon consultation with the dealer. If the refrigerant leaks and exceeds the critical concentration, oxygen deficiency may be caused.

Check whether earthing work is performed correctly.

A grounding is necessary. If the earthing work is incomplete, an electric shock may be caused. (For details, conform to the local regulation in each area.)

[Warning on use]

Do not expose your body directly in cool air for a long time, or do not cool you excessively.

It causes the worse of physical condition or trouble on health.

Never insert a finger or bar into the air inlet or air outlet.

Since the fan rotates in high speed inside of the unit, an injury may be caused.

When a trouble (burnt smell, etc.) is felt, stop the operation, turn off the power switch, and contact the dealer who you have purchased the air conditioner.

If keeping operation as the air conditioner is defective, a fire, electric shock, or trouble may be caused.



[Warning on moving/repair]

Never modify the air conditioner.

A fire or electric shock may be caused.

For repair, leave it to the dealer which you have purchased the air conditioner.

If an incomplete repair is performed, a fire or electric shock may be caused.

When moving or re-installing the air conditioner, contact the dealer which you have purchased the air conditioner or the special engineer.

If an incomplete installation is performed, a fire, electric shock, injury, or water leakage may be caused.



En

1 PRECAUTIONS FOR SAFETY

CAUTION

[Caution on installation]

Check the drain pipes are installed so that they can drain water securely.

If the piping is incomplete, water leakage occurs resulted in moisture on furniture.

Check the earth leakage breaker is attached.

It is necessary to attach an earth leakage breaker.

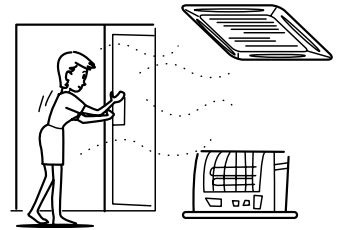
Otherwise, it causes an electric shock.

Check the air conditioner is installed at a place where flammable gas will not leak.

If gas leaks and accumulates in the unit surroundings, an outbreak of fire may be caused.

Check the outdoor unit is fixed on the base.

If it is not fixed securely on the base, an accident such as falling may be caused.



[Check fixing method]

Do not clean the air conditioner with water.

An electric shock may be caused.

Do not put the combustible devices at a place where air from the air conditioner flows directly.

Imperfect combustion of the combustible devices may be caused.

Diligently ventilate the room when operating the air conditioner with the combustible devices.

If ventilation is incomplete, shortage of oxygen may be caused.

Check the installation base, etc. is not damaged by use for a long time.

If leaving them damaged, the unit may fall resulted in injury, etc.

Do not put plants and animals at a place where air from the air conditioner flows directly.

Cause to affect on plants and animals may generate.

Do not put flammable spray, etc. near the air conditioner, or do not spray directly on the air conditioner.

A fire may be caused.

Do not put vessels including water such as a vase on the unit.

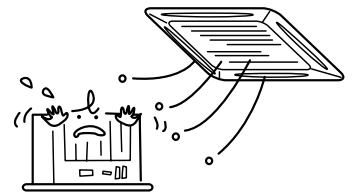
Moisture floods in the unit, the electric isolation deteriorates, and an electric shock may be caused.

Do not handle the switches with wet hands.

An electric shock may be caused.

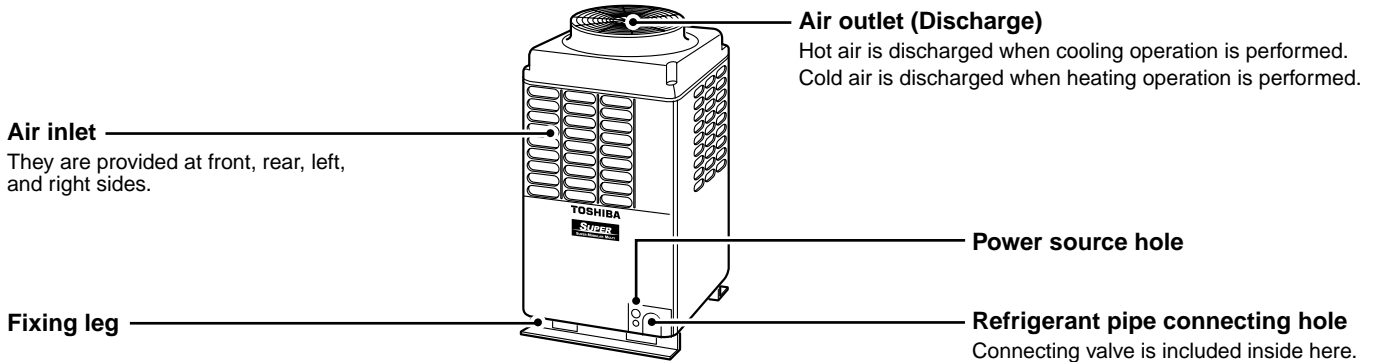
Do not use the air conditioner for special purpose such as storage of foods, plants and animals, precise equipment, and art works.

Deterioration of quality may be caused.



2 PARTS NAME

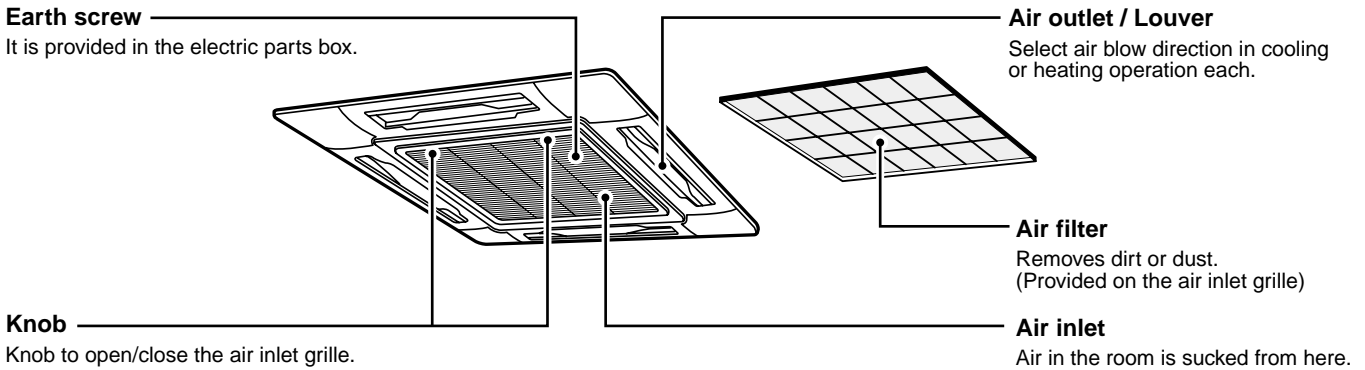
Outdoor unit



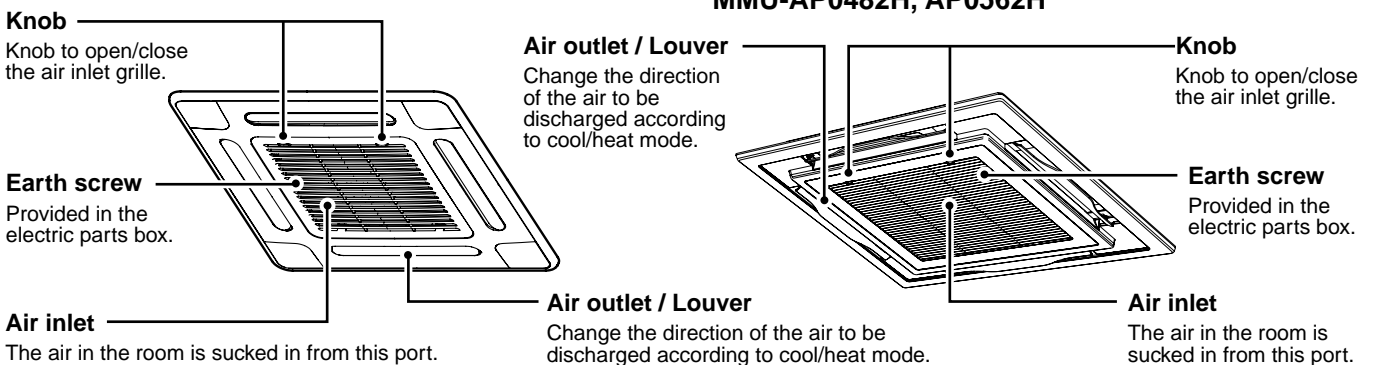
Indoor unit

[4-way Air Discharge Cassette Type]

MMU-AP0091H, AP0121H, AP0151H, AP0181H, AP0241H, AP0271H, AP0301H, AP0361H, MMU-AP0481H, AP0561H

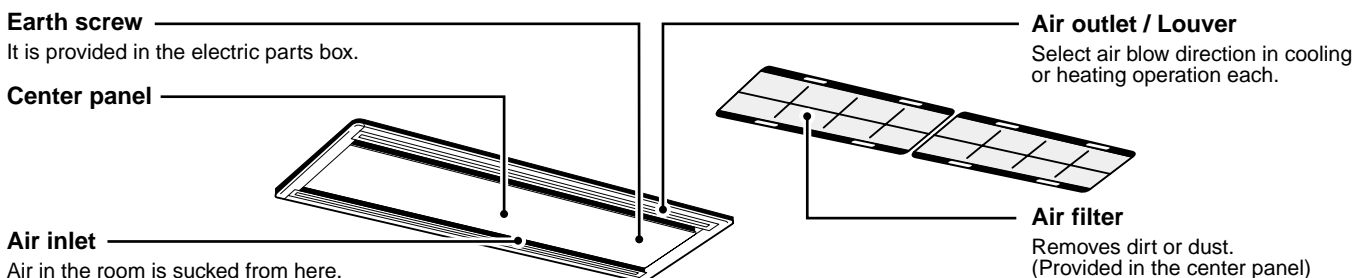


MMU-AP0071MH, AP0091MH, AP0121MH, MMU-AP0151MH, AP0181MH



MMU-AP0092H, AP0122H, AP0152H, AP0182H, MMU-AP0242H, AP0272H, AP0302H, AP0362H, MMU-AP0482H, AP0562H

[2-way Air Discharge Cassette Type]



2 PARTS NAME

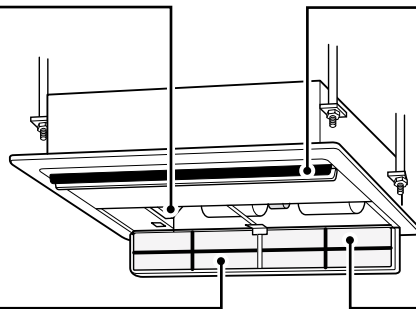
[1-way Air Discharge Cassette Type] MMU-AP0071YH to AP0121YH

Earth screw

It is provided in the electric parts box.

Air outlet / Louver

Select air blow direction in cooling or heating operation each.



Air inlet grille

Air in the room is sucked from here.

Air filter

Removes dirt or dust.
(Provided in the air inlet grille)

MMU-AP0152SH, AP0182SH, AP0242SH

Button

Button to open/close air inlet.

Air outlet / Louver

Change the direction of the air to be discharged according to cool/heat mode.

Air filter

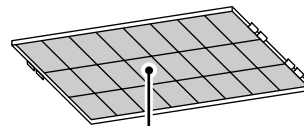
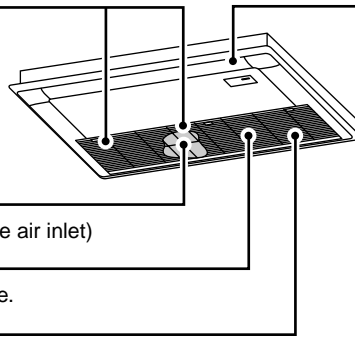
Removes dirt or dust. (Provided on the air inlet)

Air inlet

Sucks air inside of the room from here.

Earth screw

It is provided in the electric parts box.



Air filter

Removes dirt or dust.
(Provided on the air inlet)

[Concealed Duct Standard Type]

Air outlet flange

Discharge duct is connected.

Earth screw

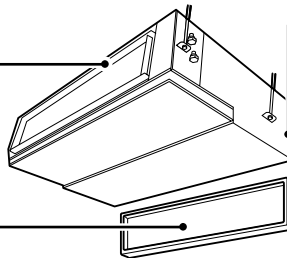
Earth screws are provided in the electric parts box.

Air inlet

Air in the room is sucked from here.

Air filter

Removes dirt or dust.
(Provided in the air inlet)



[Concealed Duct High Static Pressure Type]

Air outlet

Discharge duct is connected.

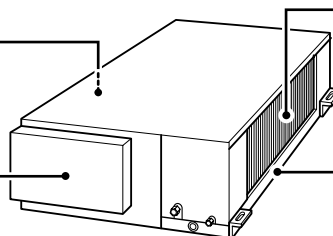
Air inlet

Suction duct is connected.

Earth screw

Earth screws are provided in the electric parts box.

Drain pan



[Slim Duct Type]

Air inlet

Suction duct is connected.

Earth screw

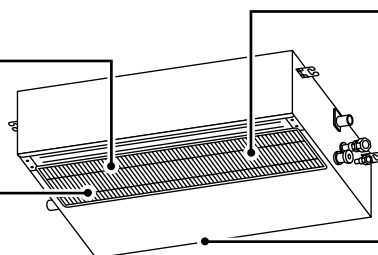
It is provided in the electric parts box.

Air filter

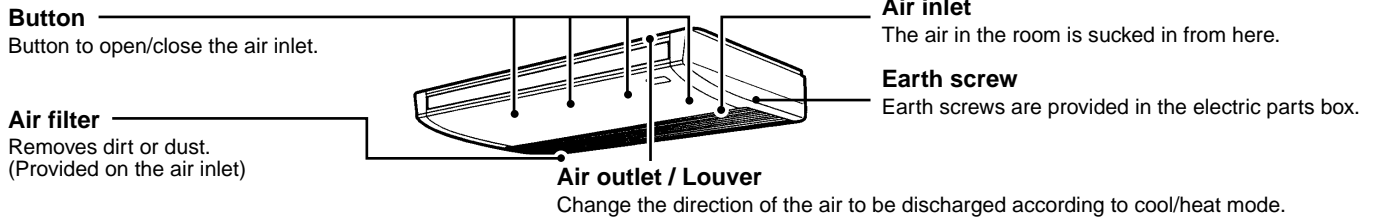
(Not provided to some models in the series.)

Air outlet

Discharge duct is connected.

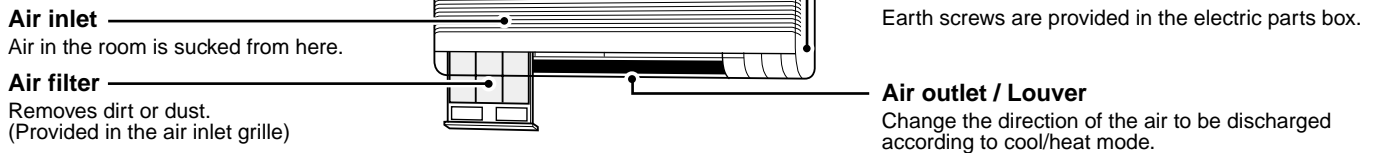


[Under Ceiling Type]

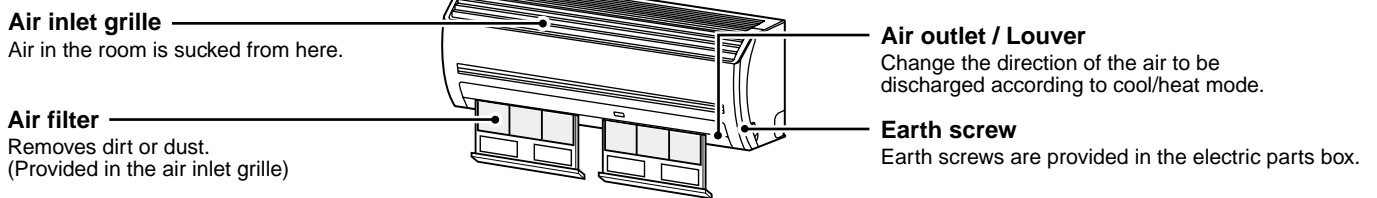


[High Wall Type]

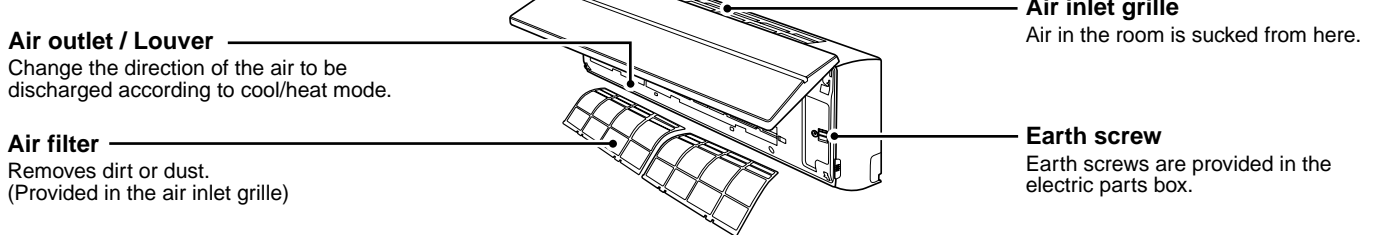
MMK-AP0071H to AP0241H



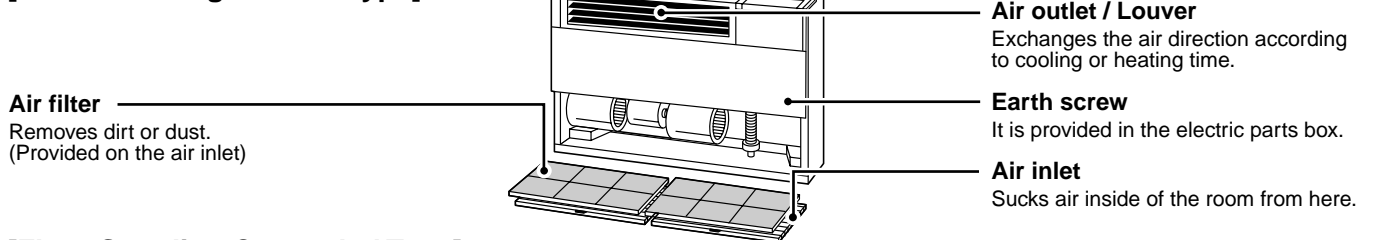
MMK-AP0072H to AP0122H



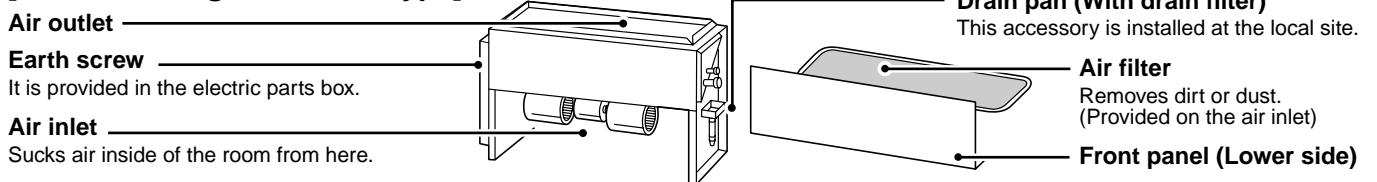
MMK-AP0073H to AP0243H



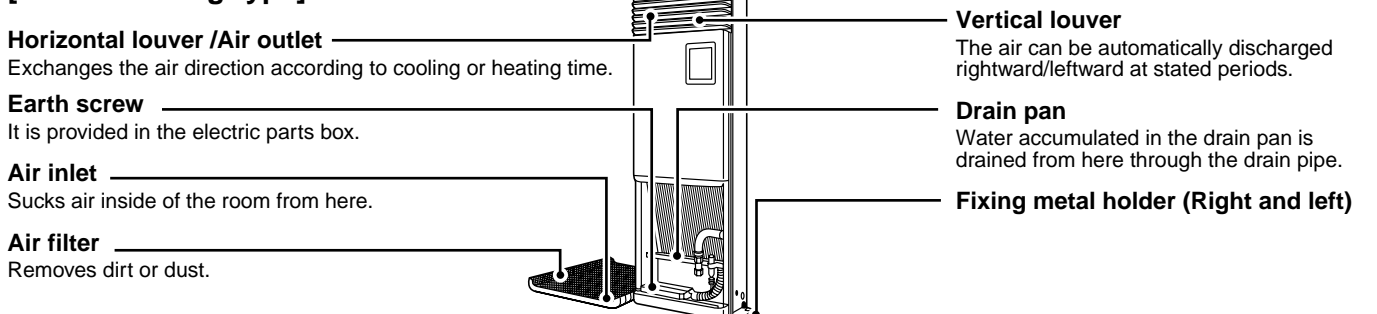
[Floor Standing Cabinet Type]



[Floor Standing Concealed Type]



[Floor Standing Type]



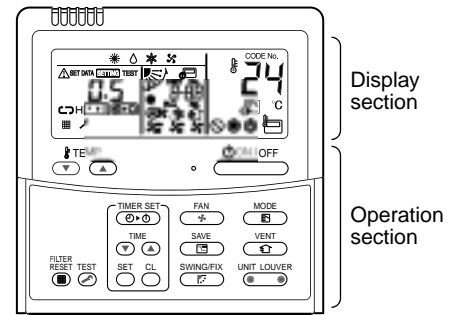
3 PARTS NAME OF REMOTE CONTROLLER

■ Display section

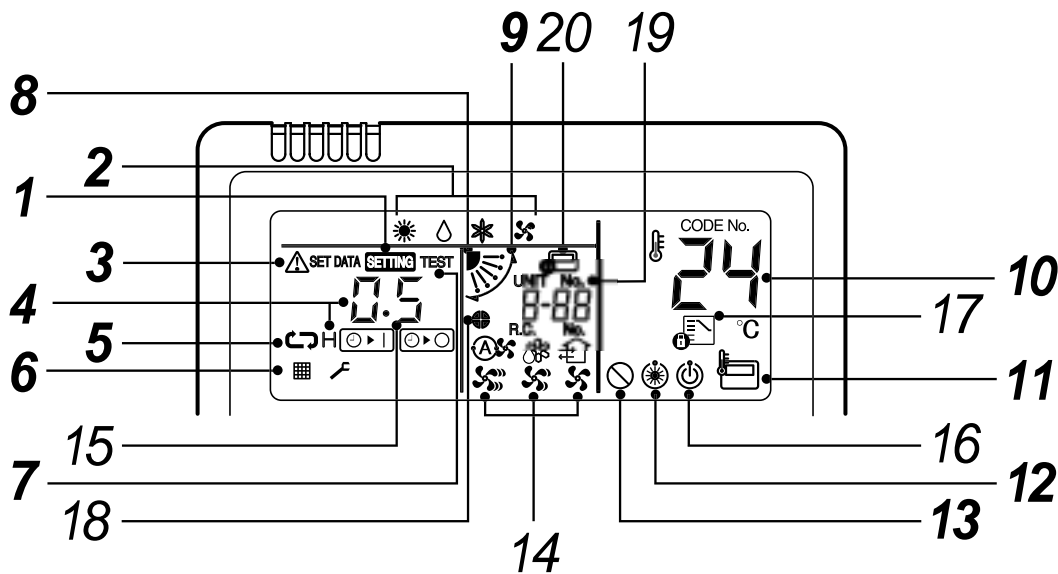
In the display example, all indicators are displayed for the explanation.
In reality only, the selected contents are indicated.

- When turning on the main power switch and leak breaker at the first time, **SETTING** flashes on the display part of the remote controller.
- While this display is flashing, the model is being automatically confirmed.

Accordingly, wait for a while after **SETTING** display has disappeared, and then use the remote controller.



This remote controller can control the operation of Max. 8 indoor units.



1 SETTING display

Displayed during setup of the timer etc.

2 Operation mode select display

The selected operation mode is displayed.

3 CHECK display

Displayed while the protective device works or a trouble occurs.

4 Timer time display

Time of the timer with H mark is displayed.
(When a trouble occurs, the check code is displayed.)

5 Timer SET IN setup display

When pushing the Timer SET IN button, the display of the timer is selected in order of [OFF] [ON] → [OFF] → [ON] → No display.

6 Filter display

If "FILTER" is displayed, clean the air filter.

7 TEST run display

Displayed during a test run.

8 Louver position display

(4-way Air Discharge Cassette, 2-way Air Discharge Cassette, 1-way Air Discharge Cassette, Under Ceiling and High Wall Type only (2H. 3H))

Displays louver position.

9 SWING display

Displayed during up/down movement of the louver.

10 Set up temperature display

The selected set up temp. is displayed.

11 Remote controller sensor display

Displayed while the sensor of the remote controller is used.

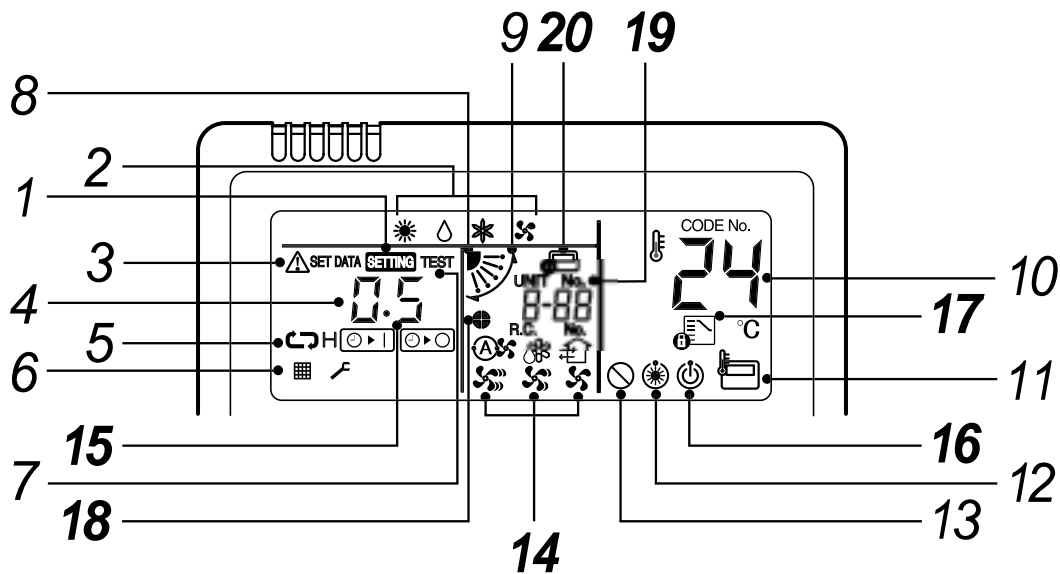
12 PRE-HEAT display (Heat-pump model only)

Displayed when the heating operation starts or defrost operation is carried out.

While this indication is displayed, the indoor fan stops or the mode enters in LOW.

13 No function display

Displayed if there is no function even if the button is pushed.



14 Air volume select display

The selected air volume mode is displayed.

(AUTO)  (HIGH) 
 (MED.)  (LOW) 

15 Louver Number display (example: 01, 02, 03, 04)

16 Operation ready display

Displayed when cooling or heating operation is impossible because the outdoor temperature goes out of the operable range.

17 Mode select control display

Displayed when pushing "Operation mode select" button while the operation mode is fixed to heating or cooling by the system manager of the air conditioner.

18 Louver lock display (4-way Air Discharge Cassette Type 2H series only)


Displayed when there is a louver-locked unit in the group (including 1 indoor unit by 1 outdoor unit).

19 Unit Number display

Unit number of the indoor unit selected with the unit select button or abnormal indication of the indoor/outdoor unit.

20 Central control display

Displayed when the air conditioner is used under the central control in combination with a central control remote controller.

In case the remote controller is disabled by the central control system,  flashes.

The button operation is not accepted.

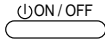
Even when you push ON/OFF, MODE, or TEMP. button, the button operation is not accepted.

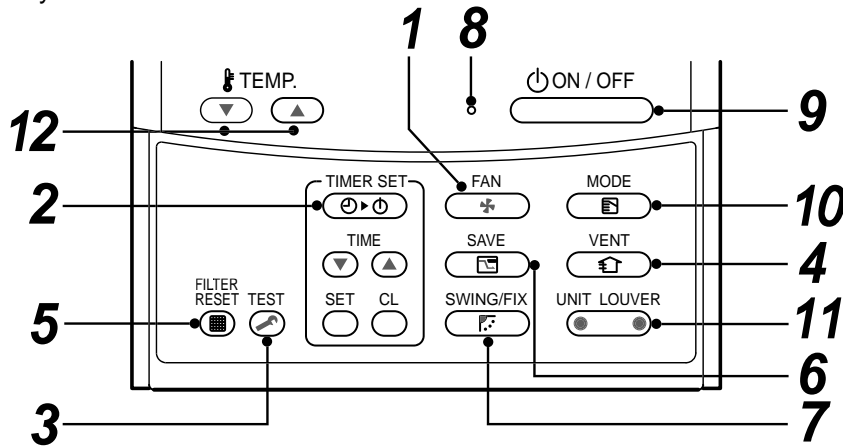
(Settings made by the remote controller vary with the central control mode. For details, refer to the Owner's Manual of the central control remote controller.)

3 PARTS NAME OF REMOTE CONTROLLER

■ Operation section

Push each button to select a desired operation.

- The details of the operation needs to be set up once, afterward, the air conditioner can be used by pushing  button only.



1 button (Air volume select button)

Selects the desired air volume mode.

2 button (Timer set button)


TIMER SET button is used when the timer is set up.

3 button (Check button)


The CHECK button is used for the check operation. During normal operation, do not use this button.

4 button (Ventilation button)

Ventilation button is used when a fan which is sold on the market is connected.

- If “No function  ” is displayed on the remote controller when pushing the Ventilation button, a fan is not connected.

5 button (Filter reset button)

Resets (Erases) “ FILTER” display.

6 button (Power save operation)

No function

7 button (Swing/Wind direction button)

Selects automatic swing or setting the louver direction.

- This function is not provided to Concealed Duct Standard Type, High Static Pressure Type, Floor Standing Cabinet Type, Floor Standing Concealed Type, or Slim Duct Type.

8 Operation lamp

Lamp is lit during the operation.

Lamp is off when stopped.

Also it flashes when operating the protection device or abnormal time.

9 button

When the button is pushed, the operation starts, and it stops by pushing the button again.

When the operation has stopped, the operation lamp and all the displays disappear.

10 button (Operation mode select button)

Selects desired operation mode.

11 button (Unit/Louver select button)

Selects a unit number (left) and louver number (right).

UNIT:



Selects an indoor unit when adjusting wind direction when multiple indoor units are controlled with one remote controller.

LOUVER (4-way Air Discharge Cassette Type 2H series only):

Selects a louver when setting louver lock or wind direction adjustment independently.

12 button (Set up temperature button)

Adjusts the room temperature.

Set the desired set temperature by pushing  TEMP. .

OPTION :


Remote controller sensor

Usually the TEMP. sensor of the indoor unit senses the temperature. The temperature on the surrounding of the remote controller can also be sensed.

For details, contact the dealer from which you have purchased the air conditioner.

- In case that one remote controller controls the multiple indoor units, the setup operation is unavailable in group control.

4 CORRECT USAGE


- When you use the air conditioner for the first time or when you change the SET DATA value, follow the procedure below. From the next time, the operation displayed on the remote controller will start by pushing the  button only.

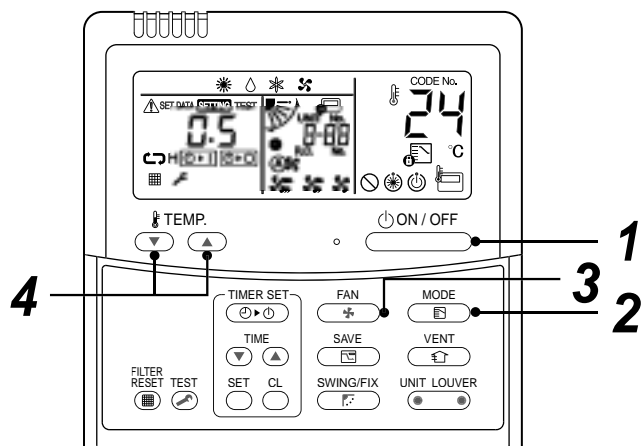
■ Preparation

Turn on the main power switch and/or the leakage breaker.

- When the power supply is turned on, a partition line is displayed on the display part of the remote controller.
- * After the power supply is turned on, the remote controller does not accept an operation for approx. 1 minute, but it is not a failure.

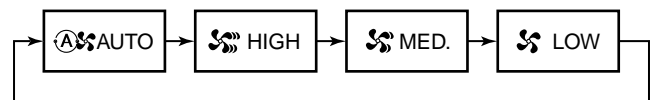
REQUIREMENT

- While using the air conditioner, operate it only with  button without turning off the main power switch and the leak breaker.
- When you use the air conditioner after it has not been used for a long period, turn on the power switch at least 12 hours before starting operation.



3 Select air volume with “ ” button.

One push of the button, and the display changes in the order shown as follows.




Start

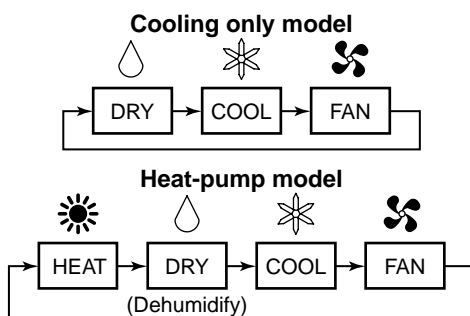
1 Push button.









The operation lamp goes on, and the operation starts.

2 Select an operation mode with the “MODE ” button.

One push of the button, and the display changes in the order shown as follows.


- “ DRY mode” function is not provided to Concealed Duct High Static Pressure Type.



- When air volume is “ AUTO”, air volume differs according to the room temperature.
- In  DRY mode, “ AUTO” is displayed and the air volume is LOW.
- In heating operation, if the room temperature is not heated sufficiently with VOLUME “ LOW” operation, select “ MED.” or “ HIGH” operation.
- The temperature sensor senses temperature near the air inlet of the indoor unit, which differs from the room temperature depending on the installation condition.
A value of setting temperature is the measure of room temperature.
 (“ AUTO” is not selectable in the FAN mode.)
- Air volume of function is not provided to “Concealed Duct High Static Pressure Type” but air speed “ HIGH” only is displayed.

4 Determine the set up temperature by pushing the “TEMP. ” or “TEMP. ” button.

Stop

Push  button.


The operation lamp goes off, and the operation stops.

4 CORRECT USAGE

[In case of cooling]

- Start the cooling operation after approx. 1 minute.

[In case of heating (For Heat-pump model only)]

- The heating operation mode is selected in accordance with the room temperature and operation starts after approximately 3 to 5 minutes.
- After the heating operation has stopped, FAN operation may continue for approx. 30 seconds.
- When the room temperature reaches the set temperature, the super low wind is discharged and the air volume decreases excessively.
- During defrost operation, the fan stops so that cool air is not discharged. (“ PRE-HEAT” is displayed.)

NOTE


When restarting the operation after stop

- When restarting the operation immediately after stop, the air conditioner does not operate for approx. 3 minutes to protect the machine.
-

5 ADJUSTMENT OF WIND DIRECTION

For best cooling and heating performance, adjust the louvers (adjustment of up/down wind direction) appropriately.

CAUTION

- If cooling operation is performed with downward air outlet, dew may fall on surface of the cabinet or the horizontal louver resulted in dripping.
 - If heating operation is performed with horizontal air outlet, unevenness of temperature may increase in the room.
 - Do not move the horizontal louver directly with hands; otherwise a trouble is caused.
Select direction of the horizontal louver using  switch on the remote controller.
The horizontal louver does not stop immediately even if the switch is pushed.
Adjusting the stop position, push the switch.
-

◆ For all models

[In Cooling operation]

Use the louvers with horizontal set point.

[In Heating operation (For Heat-pump model only)]

Use the louvers with downward set point.

◆ For Under Ceiling, 1-way Air Discharge Cassette, High Wall Type

[Right / Left air direction adjustment]

To change the air outlet direction to right or left side, set the vertical louver inside of the horizontal louver to the desired direction.

◆ 4-way Air Discharge Cassette Type (1H series), Compact 4-way Type

- When the air conditioner is not operating, the louvers automatically direct downward.
- While the air conditioner is in ready status for heating, the louvers direct upward.

The swinging operation starts after heating ready status has been cleared, but “SWING ↷” is displayed on the remote controller even if the status is ready to heating.

◆ 4-way Air Discharge Cassette Type (2H series)

- When the air conditioner is not operating, the louvers automatically close.
- The louvers direct horizontally when heating begins, during defrost operation, or during the minimum operation after reaching the set temperature.

When you make a swing or air direction setting at this time, the remote controller display varies with the setting, but the louvers stay pointed straight out horizontally.

When the air conditioner starts heating, the louvers direct to the set direction.

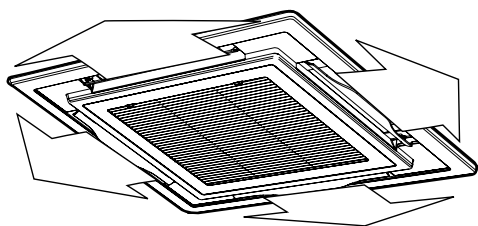
- As the refrigerant recovery control for the outdoor units in the Modular Multi system works even if the outdoor units stop, in some cases, the louver of the stopped indoor unit may open for several minutes.

[In Cooling operation]

Use the louvers with horizontal set point.

For Cooling (Cool)

Direct the louvers horizontally.

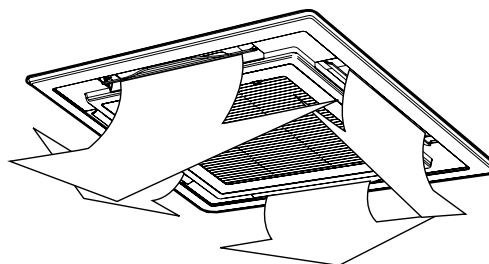


[In Heating operation (For Heat-pump model only)]

Use the louvers with downward set point.

For Heating (Heat)

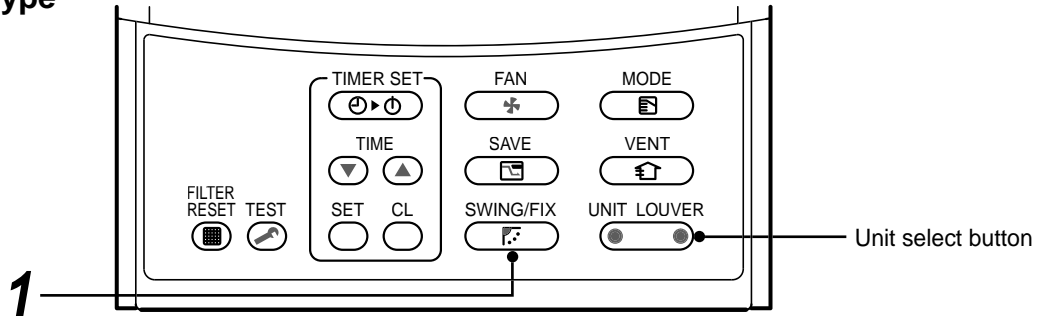
Direct the louvers downward.



According to the shape or arrangement of the room, the cold air and hot air can be discharged for two directions or three directions. For details, contact the dealer.

5 ADJUSTMENT OF WIND DIRECTION

◆ 4-way Air Discharge Cassette, 1-way Air Discharge Cassette (2SH series), Under CeilingType



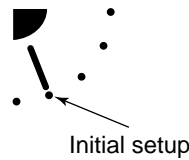
■ How to set up the wind direction

- 1 Push during operation.
The wind direction changes for every push of the button.

[In HEAT operation (For Heat-pump model only)]

Direct the louver (adjustment plate of up/down wind direction) downward.

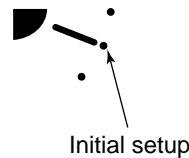
If directing horizontally, hot air may not come to the foot.



[In COOL/DRY operation]

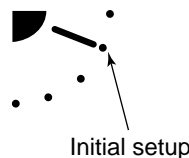
Direct the louver (adjustment plate of up/down wind direction) horizontally.

If directing it downward, the dew may form on the surface of the air discharge port and may drop down.



[In FAN operation]

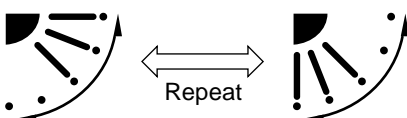
Select a desired wind direction.



■ How to start swinging

- 1 Push , set the louver (adjustment plate of up/down wind direction) direction to the lowest position, and then push again.
SWING is displayed and the up/down wind direction is automatically selected.

Display during swinging



■ How to stop swinging

- 1 Push at a desired position while the louver is swinging.
 - When is pushed after that, wind direction can be set again from the highest position.
 - * However, even if is pushed while the louver is swinging, the louver position is displayed as follows and highest position of the louver may not be selected.

Display when swinging is stopped



In this case, push again two seconds later.

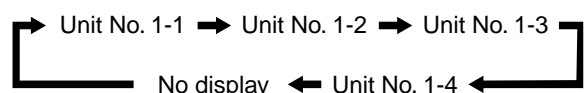
- In COOL/DRY operation, the louver does not stop as it directs downward. If stopping the louver as it directs downward during swing operation, it stops after moving to the third position from the highest position.

Display when stopping the swing

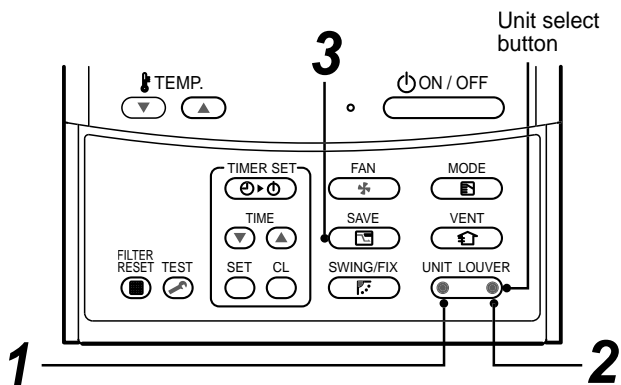


Unit select button

- When multiple indoor units are controlled with one remote controller, wind direction can be set for each indoor unit by selecting individually.
- To set wind direction individually, push button to display an indoor unit number in the control group. Then set the wind direction of the displayed indoor unit.
- When no indoor unit number is displayed, all indoor units in the control group can be controlled simultaneously.
- Each time you push button, the display changes as follows:

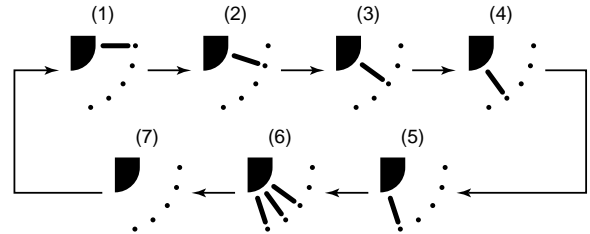


◆ 4-way Air Discharge Cassette Type (2H series only)



3 Determine wind direction of the selected louver by pushing .

- Each time you push the button, the display changes as follows:

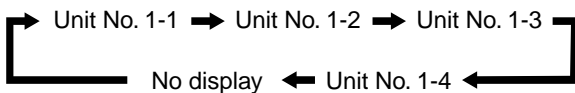


- * During COOL (DRY) mode, (4) and (5) are not displayed.

■ How to set louver wind direction individually

1 Select an indoor unit to be set by pushing (left side of the button) during operation.

- The indoor unit number changes each time you push the button.



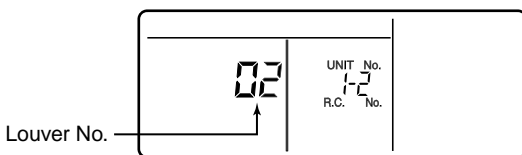
- * When no unit number is displayed, all indoor units are selected.

2 Select a louver you want to adjust change by pushing (right side of the button).

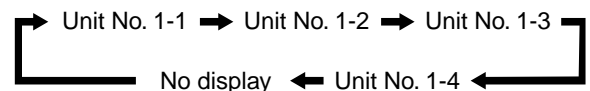
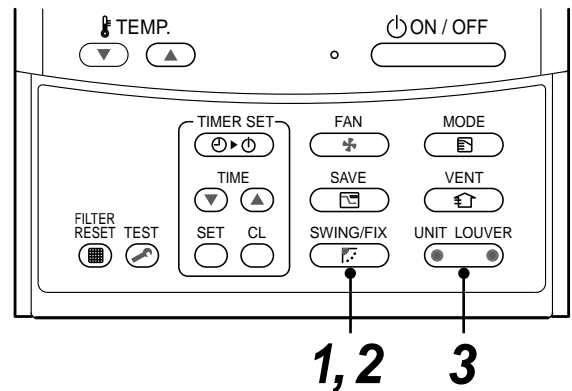
- Each time you push the button, the display on the left of the remote controller changes as follows:



- * When no louver number is displayed, all four louvers are selected.




◆ 2-way Air Discharge Cassette, 1-way Air Discharge Cassette Type (1YH series)



Setup of air direction and swinging

1 Push button during operation.



- [SWING 

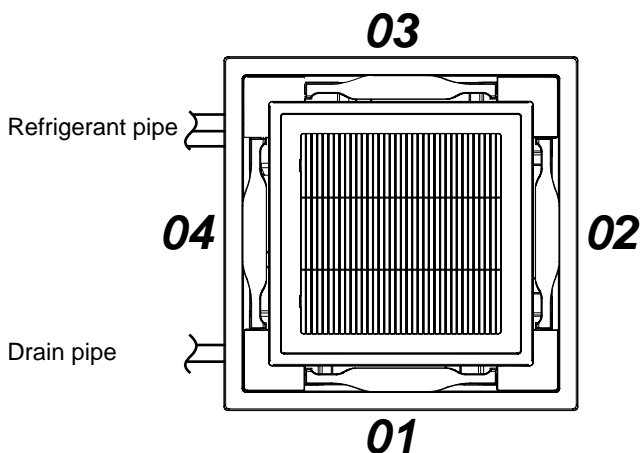
In case when one remote controller controls the multiple indoor units, each indoor unit can be selected and its air direction can be set up.

2 Push button again during swinging of the louver.

- The air outlet louver can be stopped at the desired position.

3

- To set up the air direction individually, push  button to display each indoor unit No. in a group control. Then set up the air direction to a displayed indoor unit.
- If there is no display, all the indoor units can be operated collectively.
- Every pushing  button, the display exchanges as shown in the figure.



5 ADJUSTMENT OF WIND DIRECTION

◆ High Wall Type

Setup of air direction and swinging

1H series: Refer to description of "2-way Air Discharge Cassette Type".

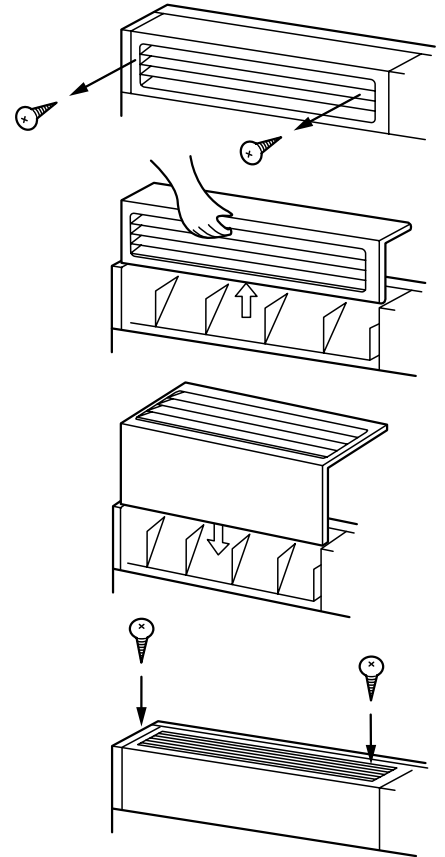
2H, 3H series: Refer to description of "4-way Air Discharge Cassette, 1-way Air Discharge Cassette (2SH series), Under Ceiling Type".

◆ Floor Standing Cabinet Type

How to change the air outlet

Change the air outlet in the following procedure.

- 1 Take off two fixing screws of the air outlet.**
(The fixing screws are reused.)
- 2 Insert the hand into the air outlet and push up it a little, and then remove the air outlet from the claw hook at rear side.**
- 3 Lift up the air outlet upward and remove it.**
- 4 Reverse the air outlet and attach it to the main unit.**
Pay attention so that four claw hooks (two at rear and lower sides each) are hooked at mounting position.
- 5 Be sure to tighten the air outlet with the removed fixing screws so that the air outlet does not come off.**



◆ Floor Standing Type

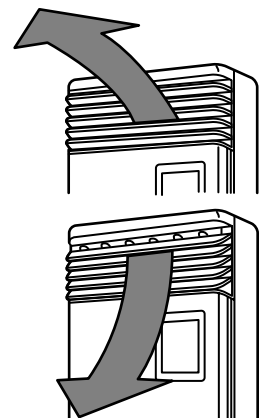
Adjustment of air direction upward/downward

[In Cooling operation]

In cooling operation, move the louver with hands and use it with horizontal air outlet point so that the cold air diffuses in whole room.

[In Heating operation (For Heat-pump model only)]

In heating operation, move the louver with hands and use the horizontal louver with downward set point so that the hot air blows at the foot.



Adjustment of air direction rightward/leftward

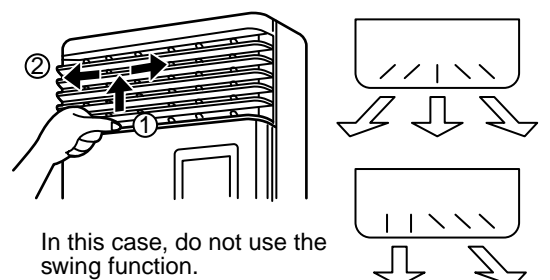
[In case of using unsymmetrical air directions]

Lift up the vertical louver lightly, direct it toward the desired direction, and lower it.

In this case, do not use the Swing function.

[In case of automatic swing]

Refer to description of "2-way Air Discharge Cassette, 1-way Air Discharge Cassette Type (1 YH series)".

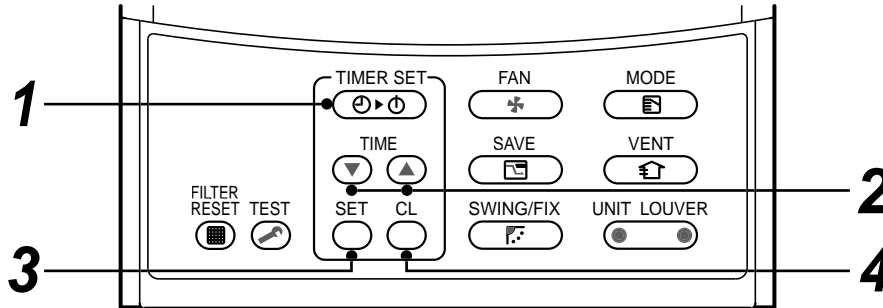


In this case, do not use the swing function.

6 TIMER OPERATION

- A type of timer operation can be selected from the following three types. (Setting of up to 168 hours is enabled.)
 OFF timer : The operation stops when the time of timer has reached the set time.
 Repeat OFF timer : Every time, the operation stops after the set time has passed.
 ON timer : The operation starts when the time of timer has reached the set time.

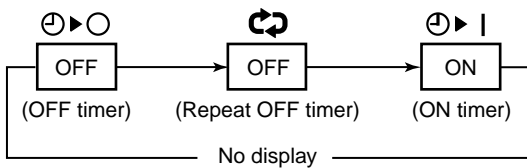
■ Timer operation



Set

1 Push TIMER SET button.

The timer display (type) changes for every push of the button.



- SETTING** and timer time displays flash.

2 Push \uparrow / \downarrow to select "SET TIME".

- For every push of \uparrow button, the set time increases in the unit of 0.5 hr (30 minutes).
 When setting a time more than 24 hours for timer operation, timer time can be set in the unit of 1 hr.
 The maximum set time is 168hr (7 days).
 The remote controller displays the set time with time (between 0.5 and 23.5 hours) (*1) or number of days and time (24 hours or more) (*2) as shown below.
- For every push of \downarrow button, the set time decreases in the unit of 0.5 hr (30 minutes) (0.5 to 23.5 hours) or 1 hr (24 to 168 hours).

Example of remote controller display

- In the case of 23.5 hours (*1)



- In the case of 34 hours (*2)



- 1d shows 1 day (24 hours).
- 10h shows 10 hours. (Total 34 hours).

3 Push SET button.

- SETTING** display disappears and timer time display goes on, and \uparrow / \downarrow or \uparrow / \downarrow display flashes. (When ON timer is activated, timer time, ON timer \uparrow / \downarrow are displayed and other displays disappear.)

4 Cancel of timer operation

Push CL button.

TIMER display disappears.

NOTE

- When the operation stops after the timer reached the preset time, the Repeat OFF timer resumes the operation by pushing ON/OFF button and stops the operation after the reached the set time.
- When you push SWING/FIX while the OFF timer function of the air conditioner is active, the indication of the timer function disappears and then appears again after about 5 seconds.
 This is due to normal processing of the remote controller.

7 INSTALLATION

Installation place

CAUTION

- Check that the air conditioner is not installed in a place subject to combustible gas leak. Accumulation of combustible gas around the unit may cause a fire.
 - Drain the dehumidified water from the indoor unit and outdoor unit to a well-drained place.
 - Do not put any obstacle near the air inlets and air outlet of the outdoor unit. Doing so may hinder the radiation, which may reduce the performance or activate the protective device.
-

Electrical wiring

WARNING

- Be sure to connect earth wire. (grounding work) Incomplete grounding cause an electric shock. Do not connect ground wires to gas pipes, water pipes, lightning rods or ground wires for telephone wires.
-

CAUTION

- **Make sure that a leakage breaker is connected.**
Using the air conditioner without leakage breaker may cause electric shock.
 - **Use a leakage breaker with an appropriate capacity.**
Be sure to use the rated voltage and an exclusive circuit for power supply of the air conditioner.
-

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 (sewing machine or massager for business use, etc.), otherwise the air conditioner may malfunction.
- 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 sulfurous 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 (air vent, lighting equipment, etc.) 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 outlet annoys your neighbors.
- 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.

8 MAINTENANCE

WARNING

Be sure to turn off the main power switch prior to the maintenance.

- Please do not intend to do the daily maintenance and/or Air Filter cleaning by yourself.

Cleaning of the air filter and other parts of the air filter involves dangerous work in high places, so be sure to have a service person do it. Do not attempt it yourself.

Daily maintenance

- For daily maintenance including Air Filter cleaning, make sure to ask the qualified service person particularly following models;

4-way Air Discharge Cassette Type
2-way Air Discharge Cassette Type
1-way Air Discharge Cassette Type

Concealed Duct Standard Type
Slim Duct Type

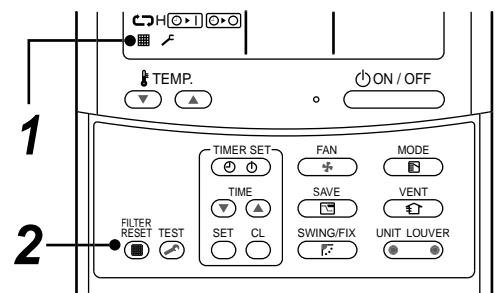
Concealed Duct High Static Pressure Type

Under Ceiling Type

Cleaning of air filters

Clogging of air filters will reduce the cooling and heating performance.

- 1 When “ FILTER” appears on the remote controller, clean the air filters.
- 2 When the cleaning of air filters has been completed, push  button. “ FILTER” disappears.



CAUTION

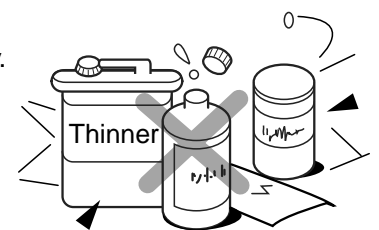
Cleaning of unit

Clean the unit with a soft dry cloth.

If dirt cannot be removed with the dry cloth, use a cloth slightly dampened with lukewarm (under 40 °C) water.

Cleaning of remote controller

- Use a dry cloth to wipe the 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.

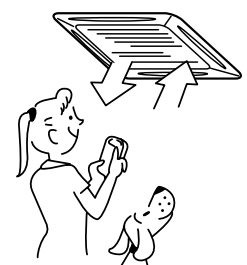


Periodic check

Long-period use of the air conditioner may cause deterioration or failure of parts due to heat, humidity, dust, and operating conditions, or may cause poor drainage of dehumidified water.

If you do not plan to use the unit for more than 1 month

- 1) Operate the fan for 3 to 4 hours to dry inside the unit.
 - Operate “FAN” mode.
- 2) Stop the air conditioner and turn off the main power switch or the circuit breaker.



Checks before operation

- 1) Check that the air filters are installed.
- 2) Check that the air outlet or inlet is not blocked.
- 3) Turn on the main power switch or the circuit breaker for the main power supply to the air conditioner.

8 MAINTENANCE

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	Check (visual/auditory)	Maintenance
Heat exchanger	• Dust/dirt clogging, scratches	• Wash the heat exchanger when it is clogged.
Fan motor	• Sound	• Take appropriate measures when abnormal sound is generated.
Filter	• Dust/dirt, breakage	• Wash the filter with water when it is contaminated. • Replace it when it is damaged.
Fan	• Vibration, balance • Dust/dirt, appearance	• Replace the fan when vibration or balance is terrible. • Brush or wash the fan when it is contaminated.
Air inlet/outlet grilles	• Dust/dirt, scratches	• Fix or replace them when they are deformed or damaged.
Drain pan	• Dust/dirt clogging, drain contamination	• Clean the drain pan and check the downward slope for smooth drainage.
Ornamental panel, louvers	• Dust/dirt, scratches	• Wash them when they are contaminated or apply repair coating.

WARNING

Re-Installation

Ask the dealer or an installation professional to re-install the air conditioner to a new place or move it to another place and to observe the following items.

If the air conditioner is inappropriately installed by yourself, it may cause electric shock or fire.

CAUTION

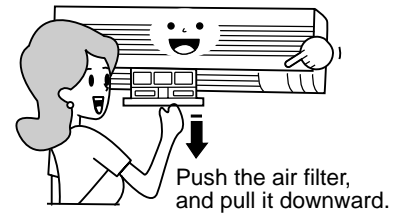
Be sure to clean the heat exchanger with pressurized water.

If a commercially detergent (strong alkaline or acid cleaning agent) is used, the surface treatment of the heat exchanger will be marred, which may degrade the self cleaning performance. For details, contact the dealer.

◆ High Wall Type

(Model : 1H series)

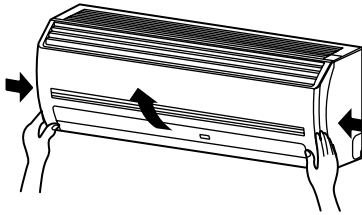
- Push the projection at the center of air filter. Clip is out.
- Undo the clip of air filter, pull the air filter downward while pushing it toward the main unit side.



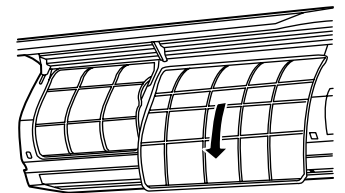
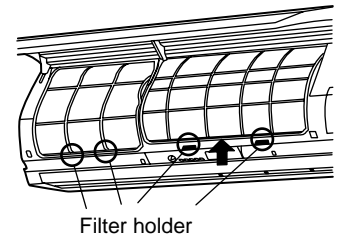
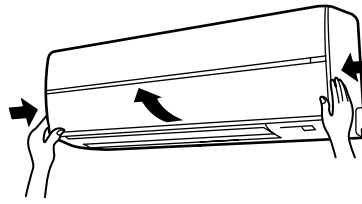
(Model : 2H, 3H series)

- Open the air inlet grille. Lift the air inlet grille up to the horizontal position.
- Take hold of the left and right handles of the air filter and lift it up slightly, then pull downward to take it out from the filter holder.

2H series

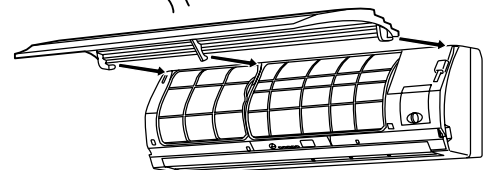
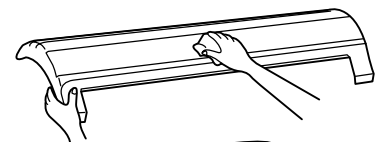
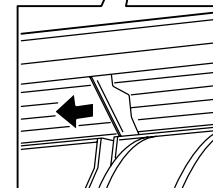
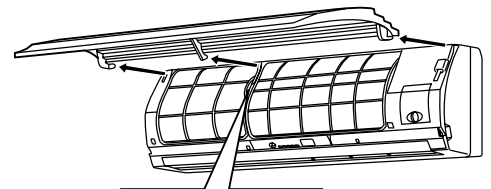
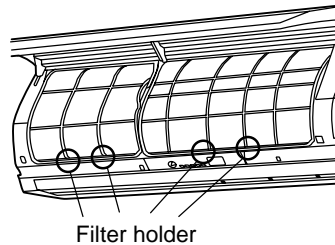
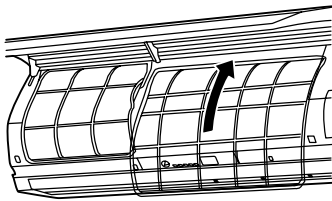


3H series



Return the air filter

- Insert the upper portion of air filter confirming to fit it is right and left edges on the indoor unit until it is firmly set.
- Close the air inlet grille.



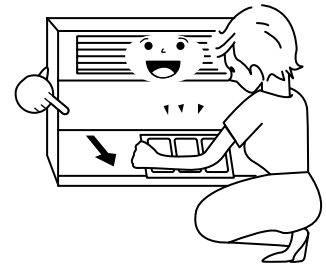
Cleaning the air inlet grille

1. Remove the air inlet grille.
Hold the two sides of the air inlet grille and open upwards.
Move the center arm to the left and remove the grille.
2. 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, and then push in the center arm.
5. Check that the center arm has been completely inserted and close the air inlet grille.
 - Push the arrow locations (Four) at the bottom of the air inlet grille to check whether the grill is completely closed.

8 MAINTENANCE

◆ Floor Standing Cabinet Type

- Push down the upper part of the air inlet a little, and then pull toward you to remove it.
- Take out the air filter inside of the air inlet.



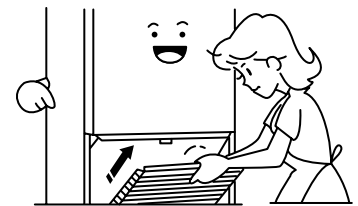
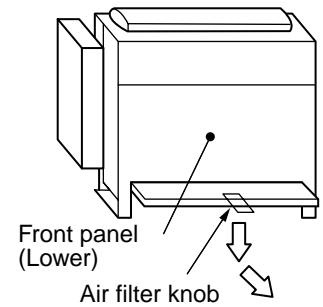
◆ Floor Standing Concealed Type

- Push down hook of the air filter on the front panel (Lower side).
- Pull the air filter toward you to remove it.

◆ Floor Standing Type

Removal / Attachment of air filter

- Pull the air filter toward you.
- To attach the air filter, insert it into the main body and push in it.



NOTE

Cleaning of air filter

- For cleaning of air filter, use a cleaner or brush clean.
If stain is heavy, it is effective to wash the air filter in tepid water mixed with neutral detergent.
 - After washing, rinse it well, and dry it in the shade.
 - Install again the air filter which has been cleaned.
-



9 AIR CONDITIONER OPERATIONS AND PERFORMANCE

Check before operation

- Check whether earth wire is disconnected or out of place.
- Check that air filter is installed to the indoor unit.
- Check that the air outlet or inlet is not blocked.
- Turn on the main power switch or the circuit breaker for the main power supply to the air conditioner.

WARNING

Turn on the power switch 12 hours or more before starting before operation.

Heating capacity (for Heat-pump model only)

- For heating, a heat pump system which sucks in outside heat air and discharges it into the room is adopted. If temperature of the outside air lowers, the heating capacity decreases.
- When temperature of the outside air is low, it is recommended to use other heating equipment together.

Defrost operation during heating operation (for Heat-pump model only)

- If the outdoor unit has some frost during heating operation, the operation mode changes automatically to defrost mode to increase the heating effect (for approx. 2 to 10 minutes).
- During defrost operation, fans of the indoor and the outdoor units stop.

3 minutes protection

- The outdoor unit does not operate for approx. 3 minutes after air conditioner has been immediately restarted after stop, or power switch has been turned on. This is to protect the system.


Main power failure

- If a power failure occurred during the operation, all operations stop.
- When restarting the operation, push ON/OFF button again.

Fan rotation of stopped unit

- While other indoor units operate, the fan on indoor units on “stand-by” rotates to protect the machine once per approx. 1 hour for several minutes.

Protective device (High pressure switch)

The high pressure switch stops the air conditioner automatically when excessive load is applied to the air conditioner. If the protective device works, the operation lamp keeps lit but the operation stops. When the protective device works, “” in the remote controller display part flash. The protective device may work in the following cases.



<Cooling operation>

- When the air inlet or air outlet of the outdoor unit is blocked.
- When strong wind blows continuously against the air outlet of the outdoor unit.

<Heating operation>

- When dust or dirt is excessively adhered to air filter of the indoor unit.
- When the air outlet of the indoor unit is blocked.

Cooling/heating operation of Modular Multi system air conditioner

- In Modular Multi system air conditioner, each indoor unit can be individually controlled. However, cooling operation and heating operation cannot be performed concurrently for the indoor units which are connected to one outdoor unit. When cooling operation and heating operation are performed concurrently, the indoor unit which is performing cooling operation stops, and “” on the display is lit. The indoor unit which is performing heating operation continues operation. If the manager has fixed the setting to COOL or HEAT, other operation than set up one cannot be performed. When other operation than set up one is performed, “” on the display is lit and the operation stops.

Characteristics of heating operation (for Heat-pump model only)

- Hot air is not out immediately after the operation has started. After 3 to 5 minutes (differs according to room or outside temperature) has passed and the indoor heat exchanger has been warmed up, hot air blows out.
- During operation, the outdoor unit may stop if outside temperature becomes high.
- When other outdoor unit performs heating operation while the fan is operating, the fan operation may be stopped temporarily to prevent blowing of hot air.

Air conditioner operating conditions


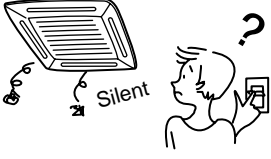
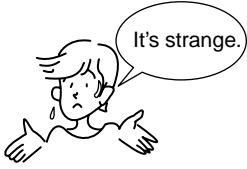
For proper performance, operate the air conditioner under the following temperature conditions:

Cooling operation	Outdoor temperature : -5°C to 43°C (Dry-bulb temp.)
	Room temperature : 21°C to 32°C (Dry-bulb temp.), 15°C to 24°C (Wet-bulb temp.)
	CAUTION Room relative humidity: less than 80 %. If the air conditioner operates in excess of this figure, the surface of the air conditioner may cause dewing.
Heating operation	Outdoor temperature : -15°C to 15.5°C (Wet-bulb temp.)
	Room temperature : 15°C to 28°C (Dry-bulb temp.)

If air conditioner is used outside of the above conditions, safety protection may operate.


10 WHEN THE FOLLOWING SYMPTOMS ARE FOUND

Check the points described below before asking repair servicing.

	Symptom	Cause
It is not a failure.	Outdoor unit <ul style="list-style-type: none"> • White misty cold air or water is out. • Sometimes, noise "Pushu !" is heard. 	<ul style="list-style-type: none"> • Fan of the outdoor unit stops automatically and performs defrost operation. • Solenoid valve works when defrost operation starts or finishes.
	Indoor unit <ul style="list-style-type: none"> • "Swish" sound is heard sometimes. • Slight "Pishi!" sound is heard. • Discharge air smells. • "Ⓜ" indication is lit.  <ul style="list-style-type: none"> • Sound or cool air is output from the stand by indoor unit. • When power of the air conditioner is turned on, "Ticktock" sound is heard. • Fan and louvers of the indoor unit moves when the unit is not operated. 	<ul style="list-style-type: none"> • When the operation has started, during the operation, or immediately after the operation has stopped, a sound such as water flows may be heard, and the operation sound may become larger for 2 or 3 minutes immediately after the operation has started. They are flowing sound of refrigerant or draining sound of dehumidifier. • This is sound generated when heat exchanger, etc. expand and contract slightly due to change of temperature. • Various smell such as one of wall, carpet, clothes, cigarette, or cosmetics adhere to the air conditioner. • When cooling operation cannot be performed because another indoor unit performs heating operation. • When the manager of the air conditioner has fixed the operation to COOL or HEAT, and an operation contrary to the setup operation is performed. • When fan operation stopped to prevent discharge of hot air. • Since refrigerant is flowed temporarily to prevent stay of oil or refrigerant in the stand by indoor unit, sound of flowing refrigerant, "Kyururu" or "Shaa" may be heard or white steam when other indoor unit operates in HEAT mode, and cold air in COOL mode may be blow-out. • Sound is generated when the expansion valve operates when power has been turned on. • Intermittent operation of the fan with louvers open is sometimes carried out for the refrigerant recovery control of unoperated unit.
Check again.	Operates or stops automatically.	<ul style="list-style-type: none"> • Is the timer "ON" or "OFF"?
	Does not operate. 	<ul style="list-style-type: none"> • Is it a power failure? • Is the power switch turned off? • Is the power fuse or breaker blown? • Has the protective device operated? (The operation lamp goes on.) • Is the timer "ON"? (The operation lamp goes on.) • Are COOL and HEAT selected simultaneously? ("Ⓜ" indication is lit on the display of the remote controller.)
	Air is not cooled or warmed sufficiently. 	<ul style="list-style-type: none"> • Is the air inlet or air outlet of the outdoor unit obstructed? • Are any door or window open? • Is the air filter clogged with dust? • Is discharge louver of the indoor unit set at appropriate position? • Is air selection set to "LOW" "MED", and is the operation mode set to "FAN"? • Is the setup temp. the appropriate temperature? • Are COOL and HEAT selected simultaneously? ("Ⓜ" indication is lit on the display of the remote controller.)

CAUTION

If any of the following conditions occur, turn off the main power supply switch and immediately contact the dealer :

- Switch operation does not work properly.
- The main power fuse often blows out, or the circuit breaker is often activated.
- A foreign matter or water fall inside the air conditioner.
- When the air conditioner does not operate even after the cause of the protective device activation has been removed. (The operation lamp and  on the remote controller are flashing.)
- Any other unusual conditions are observed.

Information according to EMC Directive 2004/108/EC	
(Name of the manufacturer)	TOSHIBA CARRIER CORPORATION
(Address, city, country)	23-17 TAKANAWA, 3-Chome, Minatoku, Tokyo 108-8580 Japan
(Name of the Importer/Distributor in EU)	Toshiba carrier UK Ltd.
(Address, city, country)	Porsham Close, Belliver Industrial Estate, PLYMOUTH, Devon, PL6 7DB. United Kingdom