

OPERATING MANUAL



Before using your air-conditioner, please read this operating instructions carefully and keep it for future reference.

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INSTALLATION

CAUTION

Don't attempt to install this unit yourself. The unit requires installation by qualified persons.

POWER

- Be sure to use the special switch with effective grounding. The connector socket in the air conditioner has been grounded already, please don't change it freely.
- If necessary, use power fuse or circuit breaker of appropriate amperes with wiring of enough capacity.
- Don't pull the power wiring hard.
- If you want to change the power wiring, please contact your dealer.

LOCATION

- Both the indoor and outdoor units must be fixed firmly.
- It is important that the airflow for the outdoor unit is not impeded as this will result in reducing heating or cooling performance. Also, please select the position where it will not be subject to snow drifts, accumulation of leaves or other seasonal debris as well as direct sunlight.
- Please keep the indoor unit more than one meter away from TV set, radio set or stereo set in order to avoid interference to picture and sound.
- Don't install the unit in the place with extreme moisture.
- To prevent distortion of the indoor unit, please do not leave under it anything requiring dry circumstances or any heaters.
- Powerful radio transmitters or any other devices radiating high frequency radio waves can cause malfunction of the air conditioner. Please consult the dealer where you purchased before installing your air conditioner.
- Don't install the unit in the dangerous place with combustible gas and volatile material.
- Operation in an atmosphere containing oils (machine oil), salt (near a coastal area) or sulfide gas (near a hot spring) may lead to the failure of the air conditioner.
- To guarantee normal performance of it, please avoid direct sunlight on the outdoor unit.
- In cooling operation, the air conditioner will dry the room air, so please fix a pipe to drain all the water away from the air conditioner.
- In heating mode (cooling only type without) and at sub-zero temperatures, the melt ice- water will flow out from the under pan of the outdoor unit. So please provide adequate drainage.

INSTALLATION

BE CAREFUL OF NOISE OR VIBRATION

- Please install the unit in stable place to avoid noise or vibration.
- Location the outdoor unit where noise emitted by it or hot air from its air outlet will flow out from the under pan of the outdoor unit. So please provide adequate drainage.
- If the air conditioner sounds abnormal during operation, stop the unit immediately and contact the relative service.

REQUIREMENT FOR ELECTRIC SAFETY

1. The wiring work must be done by qualified person.
2. All the wiring must be performed according to safety rules.
3. The main switch must be linked well with the earth.
4. A separate power source for the air conditioner according to the specifications as follow must be provided.

NOTICE

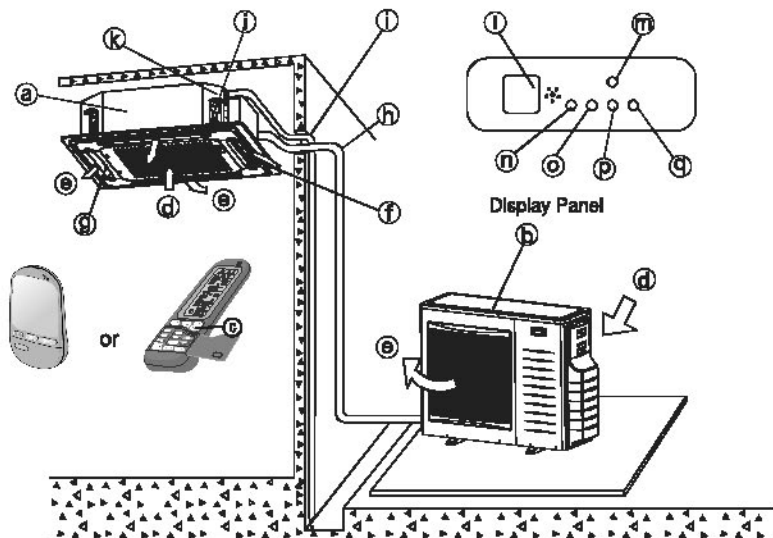
- In no circumstance should the ground wire or the main power switch be cut off.
- Don't use ruined wiring, if you have found any, please replace it immediately.
- Please pre-heat the air conditioner for at least 12 hours before operation. If use it for a long time, please keep the power on.

CAUTION

- The appliance is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with appliance.

PARTS NAMES AND THEIR FUNCTIONS

The air conditioner consists of the indoor unit, the outdoor unit, the connecting pipe and the remote controller.



NOTICE

Users will receive one of the two remote controllers shown in the chart above.

NAMES AND FUNCTIONS

- | | |
|--|--------------------------------------|
| a) Indoor unit | b) Outdoor unit |
| c) Remote controller | d) Air-In |
| e) Air-out | f) Air outlet |
| g) Air flow louver (at air outlet) | h) Connecting pipe |
| i) Drain hose | j) Air inlet (with air filter in it) |
| k) Drain pump (drain water from Indoor unit) | l) Infrared signal receiver |
| m) Temporary button | n) Power supply indicator |
| o) Operation Indicator | |
| p) Timer indicator | |
| q) Heat Indicator | |

OPERATION ATTENTION

NOTICE

- Please read this "Owner's Manual" carefully operation.
- This air conditioner is designed to provide comfortable circumstances and to guarantee the functions described in this manual only.

1. CHECK BEFORE OPERATION

- Check that the ground wiring is not broken off and is connected well.
- Check that the air filter is installed well.
- Clean the air filter at first after a long time rest. If you plan to use it continuously, please clean it once the other week. (Refer to the chapter "Maintenance")
- Be sure that air inlet and air outlet of the indoor and outdoor units are not blocked.

2. SAFETY INFORMATION

- To avoid the risk of serious electrical shock. Never sprinkle or spill water or liquid on the Indoor unit and the remote controller.
- To avoid the risk of fire, please keep inflammables such as hair-glue, spray lacquer and gasoline away from the air conditioner.
- Don't touch the grill while the airflow louver is running. Or your finger or machine parts may be hurt.
- Don't replace the blown fuse with insulated one or other wiring. It may do harm to the unit or cause fires.
- Don't put hands or objects into the air outlet and inlet. These units contain a fan running at a high speed. Contacting with the moving fan will cause serious injury.
- Don't remove the fan hood from the outdoor unit, without which it is very dangerous.
- Please use the ON/OFF button on the remote controller to start or stop the air conditioner, instead of the main power switch.
- Don't let children play with the air conditioner.
- Don't attempt to service the unit yourself, please consult qualified person.
- Because linked to the ground, this unit has a double-security function, which ensures safety for normal replacement and cleaning. To guarantee your absolute safety, however, please turn off the power before any routine maintenance.

3. AIR CONDITIONER OPERATING CONDITIONS

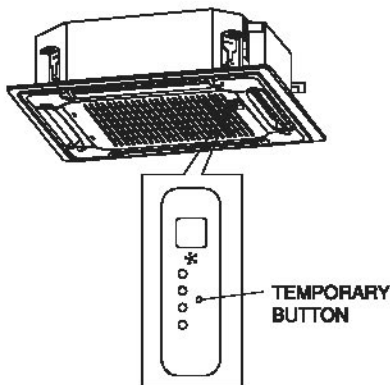
NOTICE: only cooling model (without heating operation)

COOLING	Outdoor Temperature: -10°C to 46°C
	Room Temperature: 17°C to 32°C
	CAUTION ! Room temperature humidity must be less than 80%. If the air conditioner operates in excess of this figure, the surface of the air conditioner may attract condensation. At this time, HIGH wind speed is advised.
HEATING	Outdoor Temperature: -15°C to 24°C
	Room Temperature: 0°C to 27°C
DRYING	Outdoor Temperature: -10°C to 46°C
	Room Temperature: 17°C to 32°C

NOTICE

If the air conditioner is used outside of the above conditions, malfunctions may be caused.

TEMPORARY OPERATIONS



This function is used to operate the unit temporarily in case you misplace the remote controller or its batteries are exhausted. Two modes including mandatory HEAT and mandatory COOL can be selected through the TEMPORARY BUTTON on the air inlet grill control box of the Indoor unit. Once you push this button, the air conditioner will run in such order mandatory HEAT mandatory COOL, OFF and back to mandatory HEAT.

1. Mandatory HEAT

The HEAT lamp (a) is lit, and the air conditioner will run under HEAT mode.

2. Mandatory COOL

The air conditioner will run under COOL mode.

3. OFF

The OPERATION lamp (c) goes off, and the air conditioner will be STAND-BY.

ADJUSTING AIR FLOW DIRECTION

While the unit is in operation, you can adjust the air flow louver to change the flow direction and naturalize the room temperature evenly. Thus you can enjoy it more comfortably.

1. Set the desired air flow direction.

Push the  button to adjust the louver to the desired position and push this button again to maintain the louver at this position.

2. Adjust the air flow direction automatically.

Push the  button, the louver will swing automatically.



While this function is set, the swing motor of Indoor unit runs, otherwise, the swing motor doesn't run. The swing scale of every side is 30°.

HINTS FOR ECONOMICAL OPERATION

The following should be noticed ensure an economical operation. (Refer to corresponding chapter for details)

- Adjust the air flow direction properly to avoid winding toward your body.
- Adjust the room temperature properly to get a comfortable situation and to avoid supercooling and superheat.
- In cooling, close the curtains to avoid direct sunlight.
- To keep cool or warm air in the room, never open doors or windows more often than necessary.
- Set the timer for the desired operating time.
- Never put obstructions near the air outlet or the air inlet. Or it will cause lower efficiency, even a sudden stop.
- If you don't plan to use the unit for a long time, please disconnect power and remove the batteries from the remote controller. When the power switch is connected, some energy will be consumed, even if the air conditioner isn't in operation. So please disconnect the power to save energy. And please switch the power on 12 hours before you restart the unit to ensure a smooth operation.
- A clogged air filter will reduce cooling or heating efficiency, please clean it once two weeks.

MAINTENANCE

CAUTION

- Maintenance work can only be performed by specialized maintenance personnel.
- The main power switch must be turned off before doing electrical connections or cleaning of air filter.
- Do not use water or air of temperature above 50°C to clean air filter or face panel.

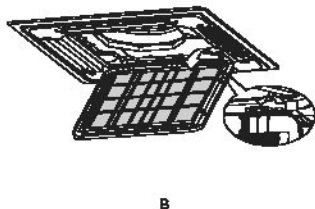
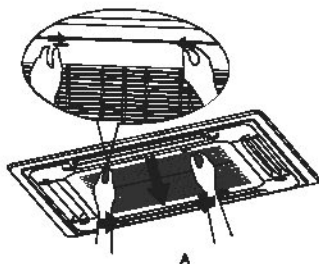
METHOD FOR CLEANING AIR FILTER

- The air filter can prevent the dust or other particulate from going inside. In case of blockage of the filter, the working efficiency of the air conditioner may greatly decrease. Therefore, the filter must be cleaned once two weeks during long time usage.
- If the air conditioner is positioned in a dust place, the cleaning frequency of the air filter must be increased.
- If the accumulated dust is too heavy to be cleaned, please replace the filter with a new one (replaceable air filter is an optional fitting).

1. Open the air-in grill

Push the grill switches towards the middle simultaneously as indicated in sketch A. Then pull down the air-in grill.

Caution: The control box cables, which are originally connected with the main body electrical terminators, must be pulled off before doing as indicated above.



2. Take out the air-in grill (together with the air filter shown in sketch B)
Pull the air-in grill down at 45° and lift it up to take out the grill.
3. Dismantle the air filter.
4. Clean the air filter (Vacuum cleaner or pure water may be used to clean the air filter. If the dust accumulation is too heavy, please use soft brush and mild detergent to clean it and dry out in cool place).

MAINTENANCE

- The air-in side should face up when using vacuum cleaner.
 - The air-in side should face down when using water.
Caution: Do not dry out the air filter under direct sunshine or with fire.
5. Re-install the air filter.
 6. Install and close the air-in grill in the reverse order of step 1 and 2 and connect the control box cables to the corresponding terminators of the main body.

CLEANING THE AIR OUTLET AND THE PANEL

- Use a dry cloth to wipe it.
- Pure water or mild detergent may be used if it is very dirty.


CAUTIONS

- Do not use benzene, thinner, polishing power, or similar solvents for cleaning. These may cause the surface to crack or deform.
- To avoid the risk of electrical shock or fire, do not let water fall into the indoor unit.
- Never wipe the air flow louver violently.
- An air conditioner without air filter cannot expel the dust out of the room, which would cause malfunctions by accumulation.

THE MAINTENANCE OF THE OUTDOOR UNIT

1. Injuries may happen by improper operations because of the sharp blade of some plates and the freezer.
2. Check the air outlet and the air inlet of the outdoor unit regularly to ensure that they are not choked by filth or soot.
3. The coil pipe and other parts of the outdoor unit should also be checked regularly. Please contact with your local dealer.

IF YOU DO NOT PLAN TO USE THE UNIT FOR A LONG TIME

- Operate the fan for about half a day to dry the inside of the unit. (Refer to the COOLING/HEATING (cooling only type without)/FAN ONLY chapter)
- Turn off the unit with the  button on the remote controller. Then disconnect the power.

MAINTENANCE

- When the power switch is connected, some energy will be consumed, even if the unit is not in operation. So please disconnect the power to save energy.
- Remove the batteries from the remote controller.
- A degree of filth will be accumulated due to certain performance after several seasons of operation. So special maintenance is advised.

RESTART AFTER A LONG TIME

1. Check before operation

- Check that air outlets of the outdoor and indoor are not blocked.
- Check that the ground wiring is not broken off and is connected well.

2. Restore the air filter and the front panel

The air filter and the front panel must be fixed to the original position after having been cleaned.

3. Connect the main power switch

To protect the air conditioner, power should be provided 12 hours before operation. Then the OPERATION lamp on the control box of the indoor unit will flash once a second.

PHENOMENA NOT CONCERNING MALFUNCTIONS

1. No operation

- The air conditioner does not work immediately after [ON] button is pushed.
For each Mode including Power OFF and SB, a Min time delay of 3 min before Comp. restarting, excluding Deicing Mode.

2. A white mist of chilled air is generated from the indoor unit

- Cooling in a room with a high relative humidity (in a place with much oil mist or dusts).
- The room temperature will be uneven if there is much filth inside the indoor unit. In this case, cleaning is necessary. This work requires qualified person.
- If the air conditioner heats right after defrosting, the water will be sent out in the form of steam.

3. Noise

A kind of continuous low sound of hiss could be heard while the air conditioner is on operation. This is caused by Freon flowing between the indoor and outdoor units causes this.

- A kind of hiss could be heard during the time of defrosting or right after stop. This is caused by Freon changing its flow volume or not flowing any more.
- A kind of continuous low sound of rustle could be heard while the air conditioner is on COOLING(including AUTO)or DRYING. This is caused by the drain pump which is running .
- A kind of squeak will be heard while the air conditioner is on or off operation. This is caused by the inflation or deflation of the plastics of the unit due to the temperature fluctuation.

4. Dusts are blown out of the indoor unit

This occurs only in the case of the first use after a longtime rest.

5. Bad odor is coming out from the indoor unit

This is because the indoor unit gives off the smell impregnated from the wall, furniture, or smoking.

6. Turning to FAN ONLY while COOLING

- To prevent the heat exchanger from frosting, turn to FAN ONLY mode automatically and the COOLING mode will be restored before long.
- When the room temperature reaches the set one, the compressor will stop to turn to FAN ONLY. In the HEATING mode, the process is reversed.

TROUBLES AND CAUSES (concerning the unit)

1. If any or the following conditions occurs, stop the air conditioner immediately, set off the power:

- The Indicator lamps flash rapidly (two times per second), you disconnect the unit with the power and then connect it again, but the lamp still flashes.
- Remote controller or switch operations are erratic.
- The fuse is blown frequently or the circuit breaker is tripped frequently.
- Foreign matter or water has fallen inside the unit.
- Water leaks from the Indoor unit.
- Any other unusual condition is observed.

2. As for the failures besides what are mentioned above, please check the following points.

1) Inoperative

- The power supply is broken. Wait for a while.
- The power switch is set off. Set it on.
- The power fuse is blown or the circuit breaker has been tripped. Replace it.
- The batteries in the remote controller are exhausted. Replace them.
- The timer is set, and it is not the set time yet.

2) Does not cool completely, though air flows out.

- The temperature is set improperly. Either set the temperature above the room temperature while cooling or below the room temperature while heating, for which the compressor can't work.
- Three-minute protection feature is working.

3) Does not cool or heat well

- The air outlet or inlet of the unit is blocked. Dredge it.
- The air filter is clogged. Clean it.
- The fan speed is set to LOW.
- The louver is not at the correct position.
- Doors or windows are open. Close them to prevent external wind.
- Direct sunlight (in cooling). Please close the curtains or shades.
- Too many people in the room (in cooling). The cooling effect will be offset by the huge volume of heat generated.
- The outdoor temperature is too high. It is normal that the cooling effect will be reduced by the extremely high outdoor temperature.

TROUBLES AND CAUSES (concerning the remote controller)

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

Setting change is impossible		
Symptoms	Causes	Reason and Disposal
The fan speed can not be changed.	• Check whether the MODE indicated on the display is AUTO.	When the automatic mode is selected, the air conditioner automatically selects the fan speed.
	• Check whether the MODE indicated on the display is DRY.	When dry operation is selected, the air conditioner automatically selects the fan speed. The fan speed can be selected among Cooling, Fan only and Heating.

The Transmission Indicator ▲ Never Comes On		
Symptoms	Causes	Reason and Disposal
The remote control signal is not transmitted when the I/O button is pushed.	<ul style="list-style-type: none"> Check whether the batteries in the remote controller are exhausted. 	The remote control signal is not transmitted, because the power supply is off.

The TEMP. Indicator Never Comes On		
Symptoms	Causes	Reason
The TEMP. indicator does not come on.	<ul style="list-style-type: none"> Check whether the MODE indicated on the display is FAN ONLY. 	The temperature cannot be set during Fan Only operation.

Display Goes Off		
Symptoms	Causes	Reason
The indicator on the display disappears after a lapse of time.	<ul style="list-style-type: none"> Check whether the timer operation has come to an end when the TIMER OFF is indicated on the display. 	The air conditioner operation stops since the set time has elapsed.
The TIMER ON indicators go off after a lapse of certain time.	<ul style="list-style-type: none"> Check whether the timer operation is started when the TIMER ON is indicated on the display. 	When the time set to start the air conditioner is reached, the air conditioner will automatically start and the corresponding indicator will go off.

The signal Receiving Tone Does Not Sound		
Symptoms	Cause	Reason
No receiving tone sounds from the Indoor unit when the I/O button is pushed.	<ul style="list-style-type: none"> Check whether the signal transmitter of the remote controller is properly directed to the receiver of the Indoor unit when the I/O button is pushed. 	Direct the signal transmitter of the remote controller to the receiver of the indoor unit, and then push the I/O button twice.
The remote controller button do not work.	<ul style="list-style-type: none"> Check the display screen of the remote controller. 	The buttons are locked.

REPARATION

If your air conditioner can not operate normally, please turn off the power immediately.

