

Ducted (E3 type)

# Panasonic®

## Operating Instructions Air Conditioner

### INDOOR UNIT

Ducted Type

S-60PE3R

S-71PE3R

S-100PE3R

S-125PE3R

S-140PE3R

S-160PE3R

### OUTDOOR UNIT

Single Split  
(Single-phase)

**PZ2 Type**

U-60PZ2R5

U-71PZ2R5

U-100PZ2R5

U-125PZ2R5

U-140PZ2R5

**PZH2 Type**

U-71PZH2R5

U-100PZH2R5

U-125PZH2R5

U-140PZH2R5

U-160PZH2R5

**PZ3 Type**

U-60PZ3R5

U-71PZ3R5

U-100PZ3R5

U-125PZ3R5

U-140PZ3R5

**PZH3 Type**

U-71PZH3R5

U-100PZH3R5

U-125PZH3R5

U-140PZH3R5

U-160PZH3R5

Single Split  
(3-phase)

**PZ2 Type**

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U-100PZ2R8

U-125PZ2R8

U-140PZ2R8

**PZH2 Type**

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U-100PZH2R8

U-125PZH2R8

U-140PZH2R8

U-160PZH2R8

**PZ3 Type**

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U-100PZ3R8

U-125PZ3R8

U-140PZ3R8

**PZH3 Type**

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U-100PZH3R8

U-125PZH3R8

U-140PZH3R8

U-160PZH3R8



Before operating the unit, read these operating instructions thoroughly and keep them for future reference.







Panasonic Corporation  
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Thank you for purchasing this Panasonic product.  
This product is a commercial air conditioner indoor unit.  
Installation instructions attached.

# Contents

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 <b>WARNING</b>	This symbol shows that this equipment uses a flammable refrigerant. If the refrigerant is leaked, together with an external ignition source, there is a possibility of ignition.
 <b>CAUTION</b>	This symbol shows type of flammable refrigerant contained in the system.
 <b>CAUTION</b>	This symbol shows that a service personnel should be handling this equipment with reference to the Technical Manual.
 <b>CAUTION</b>	This symbol shows that there is information included in the Operating Instructions and/or Installation Instructions.

## Product Information

If you have problems or questions concerning your Air Conditioner, you will need the following information. Model and serial numbers are on the nameplate on the bottom of the cabinet.

Model No.

Serial No.

Date of purchase

Dealer's address

Phone number


### Important Information Regarding The Refrigerant Used


#### NOTE


Refer to the Installation Instructions attached to the outdoor unit.


# Safety Precautions

The following symbols used in this manual, alert you to potentially dangerous conditions to users, service personnel or the appliance:

 **WARNING** This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.


 **CAUTION** This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

 Prohibited matters

 Matters to be observed


- Read these Operating Instructions carefully before using this air conditioner. If you still have any difficulties or problems, consult your dealer for help.
- This air conditioner is designed to give you comfortable room conditions. Use this only for its intended purpose as described in these Operating Instructions.

## WARNING



Confirm to authorized dealer or specialist on usage of specified refrigerant type. Using of refrigerant other than the specified type may cause product damage, burst and injury etc.

This air conditioner has no ventilator for intaking fresh air from outdoors. You must open doors or windows frequently when you use gas or oil heating appliances in the same room, which consume a lot of oxygen from the air. Otherwise there is a risk of suffocation in an extreme case.




Never use or store gasoline or other flammable vapor or liquid near the air conditioner — it is very dangerous.

Do not use this appliance in a potentially explosive atmosphere.

Never touch the unit with wet hands.

Do not insert your fingers or other objects into the air conditioner indoor or outdoor unit, rotating parts may cause injury.



## ! WARNING



If the refrigerant comes in contact with a flame, it produces a toxic gas.

For safety, be sure to turn the air conditioner off and also to disconnect the power before cleaning or servicing.

Pull off the power plug from a receptacle, or switch off the breaker, or switch off the power disconnecting mean to isolate the air conditioner from the main power supply in case of emergency.



Dispose of according to national and/or local legislation.



This product must not be modified or disassembled under any circumstances. Modified or disassembled unit may cause fire, electric shock or injury.

Do not clean inside the indoor and outdoor units by users. Engage authorized dealer or specialist for cleaning.

In case of malfunction of this appliance, do not repair by yourself. Contact the sales dealer or service dealer for a repair and disposal.



The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).

Be aware that refrigerants may not contain an odour.

An unventilated area where the appliance using flammable refrigerants is installed shall be so constructed that should any refrigerant leak, it will not stagnate so as to create a fire or explosion hazard.

The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.



Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.

Do not pierce or burn.

In cases that require mechanical ventilation, ventilation openings shall be kept clear of obstruction.



Provide a power outlet to be used exclusively for each unit, and a power supply disconnect, Earth Leakage Circuit Breaker(ELCB) or Residual Current Device(RCD) for overcurrent protection should be provided in the exclusive line.

Provide a power outlet exclusively for each unit, and full disconnection means having a contact separation in all poles must be incorporated in the fixed wiring in accordance with the wiring rules.

To prevent possible hazards from insulation failure, the unit must be grounded.



Do not use modified cord, joint cord, extension cord or unspecified cord to prevent overheating and fire.



## **WARNING**



The appliance shall be stored in a room without continuously operating open flames (for example: an operating gas appliance) and ignition sources (for example: an operating electric heater).



Stop using the product when any abnormality/failure occurs and disconnect the power plug or turn off the power switch and breaker. (Risk of smoke/fire/electric shock)

Examples of abnormality/failure:

- The ELCB trips frequently.
- The product sometimes does not start when turn on.
- The power is sometimes disconnected when the cord is moved.
- Burnt odor or abnormal noise is detected during operation.
- The body is deformed or abnormally hot.
- Water leaks from the indoor unit.
- Power cord or plug becomes abnormally hot.
- Fan speed cannot be controlled.
- The unit stops running immediately even if it is switched on for operation.
- The fan does not stop even if the operation is stopped.

Contact immediately your local dealer for maintenance/repair.



Do not sit or step on the unit. You may fall down accidentally.



## **CAUTION**



This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.

This appliance is not intended for use by persons (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. Children should be supervised to ensure that they do not play with the appliance.

Keep the fire alarm and the air outlet at least 1.5m away from the unit.

Do not cool or heat the room too much if babies or invalids are present.



Do not turn the air conditioner on and off from the power mains switch. Use the ON/OFF operation button.

Do not stick anything into the air outlet of the outdoor unit. This is dangerous because the fan is rotating at high speed.



Do not touch the air inlet or the sharp aluminum fins of the outdoor unit. You may get injured.



Do not stick any object into the FAN CASE. You may be injured and the unit may be damaged.



### **NOTICE**

- The appliance shall be stored so as to prevent mechanical damage from occurring.
- The compressor may occasionally stop during thunderstorms. This is not a mechanical failure. The unit automatically recovers after a few minutes.

# Precautions for Use

## Installation

- This air conditioner must be installed properly by qualified installation technicians in accordance with the Installation Instructions provided with the unit.
- Before installation, check that the voltage of the electric supply in your home or office is the same as the voltage shown on the nameplate.



## WARNING

### Avoid the following locations for installation.

- Locations where smoke or combustible gas exists. Also locations of extremely high temperature such as a greenhouse.
- Locations where excessively high heat-generating objects are placed.

### Attention:

- Avoid installing the outdoor unit where salty sea water can splash directly onto it or in sulphurous air near a spa. (To protect the air conditioner from heavy corrosion)

## Wiring

- All wiring must conform to the local electrical codes. (Consult your dealer or a qualified electrician for details.)
- Each unit must be properly grounded with a ground (or earth) wire or through the supply wiring.
- Wiring must be done by a qualified electrician.

## Operation Preparation

**Turn the power mains on 5 hours before the start of operation.**

(For warm-up)

- Leave the power mains ON for continuous use.



## Tips for Energy Saving

### ■ Avoid

- **Do not block the air intake and outlet of the unit.** (If either is obstructed, the unit will not function well, causing malfunction.)
- During cooling operation, use sunshades, blinds or curtains to prevent direct sunlight from entering the room.

### ■ Do

- Always keep the air filter clean. (A clogged filter will impair the performance of the unit.) → "Maintenance" (P.7)
- To prevent conditioned air from escaping, keep windows, doors and any other openings closed.

### NOTE

Pull off the power plug from a receptacle, or switch off the breaker, or switch off the power disconnecting mean to isolate the air conditioner from the main power supply when not in use for a long time.

### Information for Users on Collection and Disposal of Old Equipment and Used Batteries



#### [Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.



#### Note for the battery symbol (bottom two symbol examples):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.



Pb

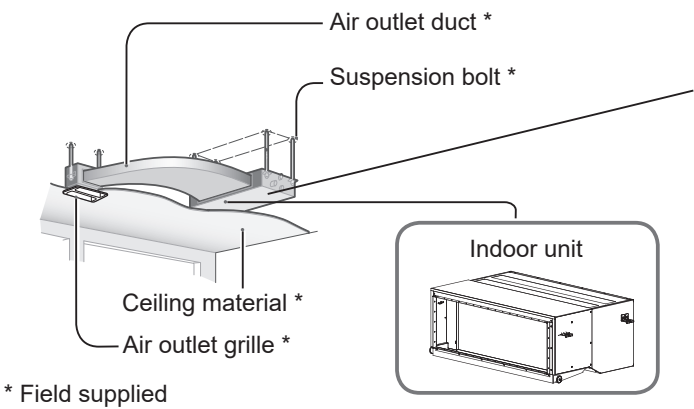


# Names of Parts

## INDOOR UNIT

### Type F3 (Middle Static Pressure Duct)

At standard installation  
(Horizontal installation in the ceiling, rear side air intake)



Label  
(attached to the lid of electrical component box)

This air conditioner incorporates a biocidal product.  
Ionized air generated by a device incorporated in the air conditioner deactivates bacteria and viruses in the air, and on surfaces, and inhibits mould growth on surfaces.  
Active substances: free radicals generated in situ from ambient air or water

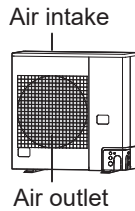


## OUTDOOR UNIT

### PZ2 (Type 60, 71)



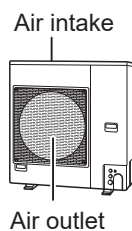
### PZ2 (Type 100, 125, 140)



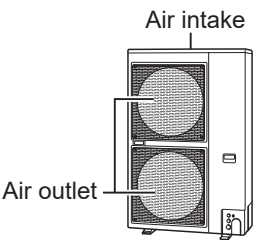
### PZH2 (Type 36, 50, 60)



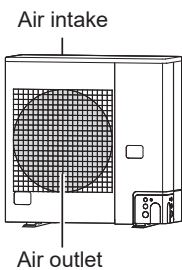
### PZH2 (Type 71)



### PZH2 (Type 100, 125, 140)



### PZH2 (Type 160)



## Optional

### Wireless Remote Controller



Model No. CZ-RWS3  
The receiver : Model No. CZ-RWRC3  
(For all indoor units)

(Infrared Remote Controller)

### Timer Remote Controller



Model No. CZ-RTC4  
For all indoor units

### High-spec Wired Remote Controller



Model No. CZ-RTC5B  
For all indoor units

### Wired Remote Controller



Model No. CZ-RTC6\*  
For all indoor units

Read the Operating Instructions included with the Remote Controller.

### ⌘ Operation & Adjusting Airflow Direction

Refer to the Operating Instructions attached to the Remote Controller.

# Maintenance

## WARNING

- For safety, be sure to turn the air conditioner off and disconnect the power before cleaning.  
(Otherwise, electric shock or injury may result because the fan is rotating at high speed.)
- Do not pour water on the indoor unit.  
(This may damage the internal components and cause an electric shock hazard.)

## CAUTION

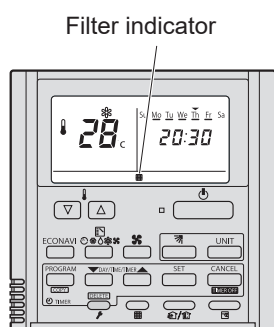
- Never use solvents or harsh chemicals. Also, do not wipe plastic parts using very hot water.  
(This may cause deformation or change in colour.)
- Some metal edges and fins are sharp. Be careful when you clean those parts.  
(Injury may result.)
- Use a firm stool or ladder when cleaning an indoor unit installed in high locations.

- The internal coil and other components of the outdoor unit must be cleaned periodically.  
• Consult your dealer or service center.

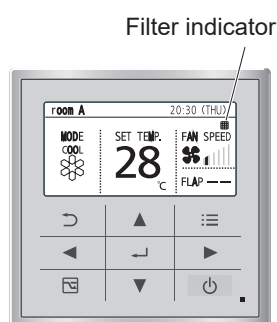
## ■ Air Filter Maintenance

Consult your dealer or service center when the  (Filter) appears on the display of the wired remote controller.

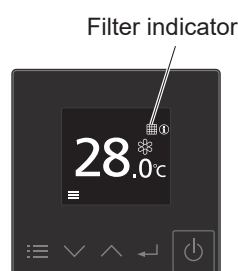
Timer Remote Controller



High-spec Wired Remote Controller



Wired Remote Controller



## Tips for Energy Saving

### ■ Avoid

- Do not block the air intake and outlet of the unit.  
(If either is obstructed, the unit will not function well, causing malfunction.)
- During cooling operation, use sunshades, blinds or curtains to prevent direct sunlight from entering the room.

### ■ Do

- Always keep the air filter clean.  
(A clogged filter will impair the performance of the unit.)  
→ "Maintenance"
- To prevent conditioned air from escaping, keep windows, doors and any other openings closed.

## Operation Mechanism

### ■ Heating performance

- Since the air conditioner utilizes outside air for heating, its heating performance deteriorates as outside temperature decreases.  
(Due to heat pump system)  
→ In that case, use another heating appliance.

### ■ Defrosting

- This appliance may start defrosting operation to melt frost formed in the outdoor unit.
  - ① **Defrosting starts:** The indoor unit fan stops (or the speed becomes extremely slow).  
→ "STANDBY" appears.
  - ② **Heating operation resumes after several minutes:** The indoor unit fan remains stopped (or it will run at a very slow speed) until the indoor heat exchanger coil warms up sufficiently.  
→ "STANDBY" is shown.
  - ③ **Defrosting is complete:** The indoor unit fan starts operation.  
→ "STANDBY" disappears.

### ■ "DRY" operation

- Once the room temperature reaches the level that was set, the outdoor unit repeats the cycle of turning on and off automatically.
- When the outdoor unit is turned off, the indoor unit fan will stop, too.  
(To prevent the humidity in the room from rising again)
- When the room temperature is more likely to reach the level that was set, the fan speed is set to "breeze" (light wind) automatically.
- "DRY" operation is not possible if the outdoor temperature is 15°C or less.

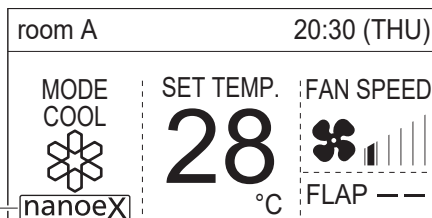
### ■ Should the power failure occurs while the unit is running

When the unit automatically resumes operation after temporary power failure, it uses the same settings before the power was cut off.

# nanoe™ X Function

## Display during operation of nanoe™ X

Example: Initial screen of remote controller



**nanoeX** : Under operation of nanoe™ X

nanoe™ X For a freshness and cleaner environment

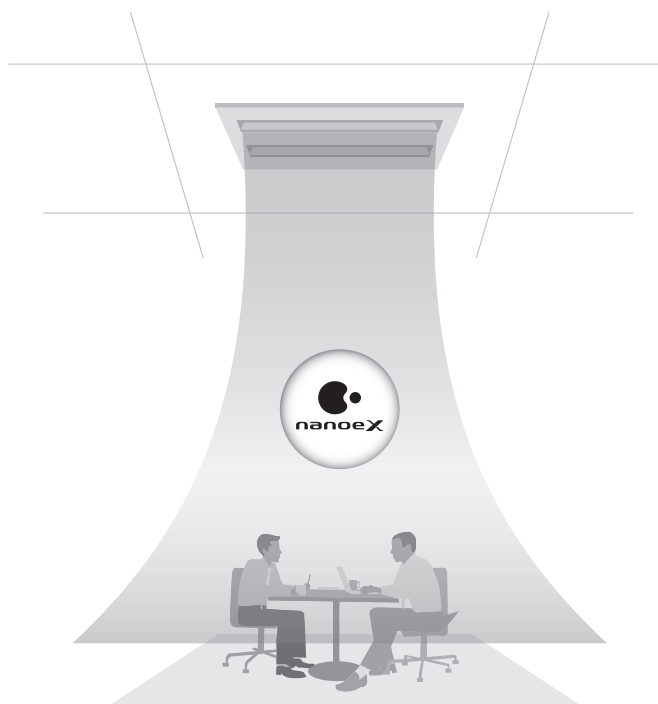
nanoe™ X generates negative ions using the air in the room to give a healthy air.

It also reduces the smell in the room, and constrains propagations of mold and bacteria.

When purchased, the nanoe™ X function is designed to automatically operate.

- If you wish to set to OFF, refer to the operating instructions for the remote controller adaptable to nanoe™ X function.




The effect of nanoe™ X may decrease slightly depending on the installation conditions of the unit.





# Troubleshooting


Check before consulting or requesting services.

Symptom		Cause / Action	
Indoor unit	Noise	▶ Sound like streaming water is heard during operation or after operation.	• • Sound of drainage water through drain pipe
		▶ Cracking noise is heard during operation or when operation stops.	• Sound due to temperature changes of parts
	▶ Discharged air smells during operation.		• Indoor odor components, cigarette odor and cosmetic odor accumulated in the air conditioner and its air is discharged. • The unit inside is dirty. (Contact your dealer.)
	▶ Dewdrops accumulate near the air outlet during cooling operation.		• Internal moisture is cooled by cool wind and accumulates as dewdrops.
	▶ Fog occurs during cooling operation.		• If the air conditioner has been installed at places such as restaurants where large amounts of oil mist exist, cleaning is necessary because the unit inside (heat exchanger) is dirty. (Contact your dealer.)
	▶ Fog occurs during heating operation.		• Defrost operation is in process.
	▶ The fan is rotating for a while even though operation stops.		• The fan may rotate to dry the heat exchanger depending on the setting.
	▶ Dust is discharged.		• Dust accumulated inside the indoor unit is discharged.
	▶ At the initial high-speed operation, the fan sometimes rotates faster than the setting speed. (3 to 30 minutes)		• motor rotation is within the range of use.
	▶ Humming noise comes out.		• This is the sound of nanoe™ X being discharged.
	▶  is not displayed on the remote controller.		• Has nanoe™ X been set to OFF? → Set to ON.
	▶   is displayed on the remote controller.		• nanoe™ X is considered abnormal. (Contact your dealer.)
Outdoor unit	▶ No operation (When the power is turned on immediately / When operation is stopped and resumed immediately)		• because the compressor protection circuit is activated.
	▶ Noise occurs during heating operation.		• Defrost operation is in process.
	▶ Steam comes out during heating operation.		
	▶ The fan continues to rotate even after the operation is stopped using the remote controller.		• This is for smooth operation.

## Before Requesting Services

Symptom	Cause	Action
<b>The air conditioner does not operate although the power is turned on.</b>	Power failure or after power failure.	Press the power ON/OFF button on the remote controller.
	The operation (power) button is turned off.	<ul style="list-style-type: none"> <li>• If the breaker is turned off, turn the power on.</li> <li>• If the breaker has been tripped, consult your dealer without turning it on.</li> </ul>
	Fuse blow out.	Contact your dealer.
<b>Poor cooling or heating performance</b>	The air intake or air outlet of indoor and outdoor units is clogged with dust.	Remove the dust.
	The fan speed switch is set to "Low".	Change to "High" or "Strong".
	Improper temperature settings.	See "Tips for Energy Saving".(P.5)
	The room is exposed to direct sunlight in cooling mode.	
	Doors or windows are open.	
	The air filter is clogged.	See "Maintenance".(P.7)
	Too many heat sources in the room in cooling mode.	Use minimum heat sources and in a short time.
	Too many people in the room in cooling mode.	Lower the temperature setting or change to "High" or "Strong".

### If your air conditioner does not work properly even after checking each item of "Before Requesting Services" and "Troubleshooting"

- Stop the operation immediately and turn the power off. Then contact your dealer and report the serial number and symptom. You also report if the inspection mark  and the letters E, F, H, L, P in combination with numbers appear on the LCD of the remote controller.
- Never repair the air conditioner by yourself since it is very dangerous for you to do so.

[illegible]



**Panasonic Corporation**  
Website: <http://panasonic.net/>

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