



Air-Conditioners SEZ-KD25,KD35,KD50,KD60,KD71VAL

OPERATION MANUAL

FOR USER

For safe and correct use, please read this operation manual thoroughly before operating the air-conditioner unit.

English

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Note (Marking for WEEE)

This symbol mark is for EU countries only.

This symbol mark is according to the directive 2002/96/EC Article 10 Information for users and Annex IV.



Your MITSUBISHI ELECTRIC product is designed and manufactured with high quality materials and components which can be recycled and reused.

This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your house-hold waste.

Please, dispose of this equipment at your local community waste collection/recycling centre.

In the European Union there are separate collection systems for used electrical and electronic product.

Please, help us to conserve the environment we live in!

1. Safety Precautions

- ▶ Before installing the unit, make sure you read all the "Safety Precautions".
- The "Safety Precautions" provide very important points regarding safety. Make sure you follow them.
- Please report to or take consent by the supply authority before connection to the system.

Symbols used in the text

♠ Warning:

Describes precautions that should be observed to prevent danger of injury or death to the user.

⚠ Caution:

Describes precautions that should be observed to prevent damage to the unit.

Symbols used in the illustrations

(1): Indicates a part which must be grounded.

⚠ Warning:

- The unit must not be installed by the user. Ask the dealer or an authorized company to install the unit. If the unit is installed improperly, water leakage, electric shock or fire may result.
- Do not stand on, or place any items on the unit.
- Do not splash water over the unit and do not touch the unit with wet hands. An electric shock may result.
- Do not spray combustible gas close to the unit. Fire may result.
- Do not place a gas heater or any other open-flame appliance where it will be exposed to the air discharged from the unit. Incomplete combustion may result.
- Do not remove the front panel or the fan guard from the outdoor unit when it is running.
- When you notice exceptionally abnormal noise or vibration, stop operation, turn off the power switch, and contact your dealer.
- · Never insert fingers, sticks etc. into the intakes or outlets.
- If you detect odd smells, stop using the unit, turn off the power switch and consult your dealer. Otherwise, a breakdown, electric shock or fire may result.
- This air conditioner is NOT intended for use by children or infirm persons without supervision.
- Young children must be supervised to ensure that they do not play with the air conditioner.
- If the refrigeration gas blows out or leaks, stop the operation of the air conditioner, thoroughly ventilate the room, and contact your dealer.

⚠ Caution:

- Do not use any sharp object to push the buttons, as this may damage the remote controller.
- Never block or cover the indoor or outdoor unit's intakes or outlets.

Disposing of the unit

When you need to dispose of the unit, consult your dealer.

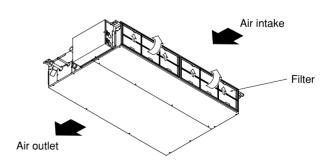
2. Parts Names

■ Indoor Unit

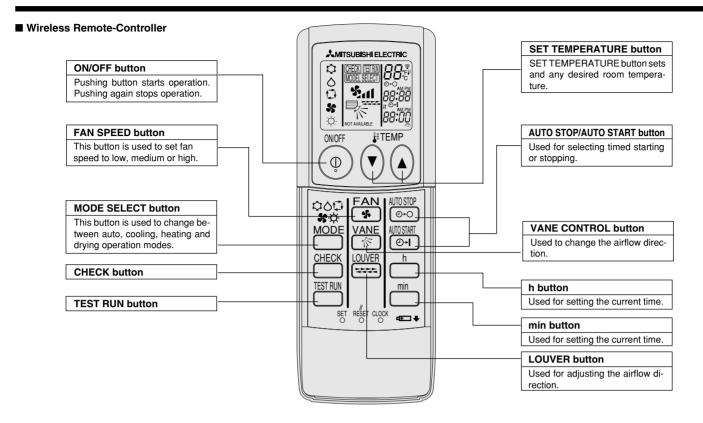
	SEZ-KD·VAL
Fan steps	3 steps
Vane	_
Louver	_
Filter	Normal
Filter cleaning indication	_

■ SEZ-KD-VAL

Ceiling Concealed

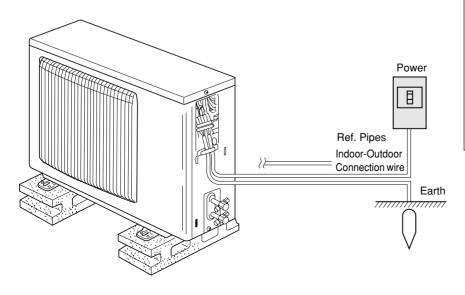


2. Parts Names



- When using the wireless remote controller, point it towards the receiver on the indoor unit.
- If the remote controller is operated within approximately two minutes after power is supplied to the indoor unit, the indoor unit may beep twice as the unit is performing the initial automatic check.
- The indoor unit beeps to confirm that the signal transmitted from the remote controller has been received. Signals can be received up to approximately 7 meters in a direct line from the indoor unit in an area 45° to the left and right of the unit. However, illumination such as fluorescent lights and strong light can affect the ability of the indoor unit to receive signals.
- If the operation lamp near the receiver on the indoor unit is flashing, the unit needs to be inspected. Consult your dealer for service.
- Handle the remote controller carefully! Do not drop the remote controller or subject it to strong shocks. In addition, do not get the remote controller wet or leave it in a location with high humidity.
- To avoid misplacing the remote controller, install the holder included with the remote controller on a wall and be sure to always place the remote controller in the holder after use.

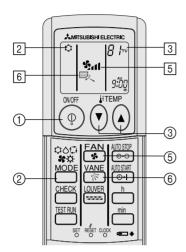
■ Outdoor unit



1. Remove the top cover, insert two AAA batteries, and then install the top cover. Two AAA batteries Insert the negative (-) end of each batteries in the correct directions (+, -)! 2. Press the Reset button. Press the Reset button with an object that has a narrow end.

3.1. Description of "AUTO RESTART FUNCTION"

- This unit is equipped with the auto restart function. When the main power is turned on, the air conditioner will start operation automatically in the same mode as set with the remote controller before the shutoff of main power.
- If the unit was set to off with the remote controller before the shutoff of main power, it will remain stopped even after the main power is turned on.
- If the unit was in the TEST RUN before the shutoff of main power, it will start operation, at main power on, in the same mode as set with the remote controller before the TEST RUN.



3.2. Turning ON/OFF

<To Start Operation>

■ Press the ON/OFF button ①.

Note

When the unit is restarted, initial settings are as follows.

	Remote Controller settings		
Mode	Last operation mode		
Temperature setting	Last set temperature		
Fan speed	Last set fan speed		
Airflow up/down	Mode	COOL or DRY	
		HEAT	
		FAN	

<To Stop Operation>

■ Press the ON/OFF button ① again.

Note:

Even if you press the ON/OFF button immediately after shutting down the operation is progress, the air conditioner will not start for about three minutes. This is to prevent the internal components from being damaged.

3.3. Mode select

Cooling mode
Drying mode
Fan mode

Heating mode

- | Automatic (cooling/heating) mode

Information for multi system air conditioner (Outdoor unit: MXZ series)

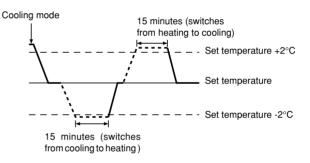
- ▶ Multi system air conditioner (Outdoor unit: MXZ series) can connect two or more indoor units with one outdoor unit. According to the capacity, two or more units can operate simultaneously.
- When you try to operate two or more indoor units with one outdoor unit simultaneously, one for the cooling and the other for heating, the operation mode of the indoor unit that operates earlier is selected. The other indoor units that will start the operation later cannot operate, indicating an operation state in flashing.

In this case, please set all the indoor units to the same operation mode.

- There might be a case that the indoor unit, which is operating in ♠
 (AUTO) mode. Cannot change over to the operating mode (COOL ↔
 HEAT) and becomes a state of standby.
- When indoor unit starts the operation while the defrosting of outdoor unit is being done, it takes a few minutes (max. about 15 minutes) to blow out the warm air.
- In the heating operation, though indoor unit that does not operate may get warm or the sound of refrigerant flowing may be heard, they are not malfunction. The reason is that the refrigerant continuously flows into it.

Automatic operation

- According to a set temperature, cooling operation starts if the room temperature is too hot and heating operation starts if the room temperature is too cold.
- During automatic operation, if the room temperature changes and remains 2 °C or more above the set temperature for 15 minutes, the air conditioner switches to cooling mode. In the same way, if the room temperature remains 2 °C or more below the set temperature for 15 minutes, the air conditioner switches to heating mode.



■ Because the room temperature is automatically adjusted in order to maintain a fixed effective temperature, cooling operation is performed a few degrees warmer and heating operation is performed a few degrees cooler than the set room temperature once the temperature is reached (automatic energy-saving operation).

3.4. Temperature setting

To decrease the room temperature:

Press Dutton 3 to set the desired temperature.

The selected temperature is displayed 3.

▶ To increase the room temperature:

Press Dutton 3 to set the desired temperature.

The selected temperature is displayed 3.

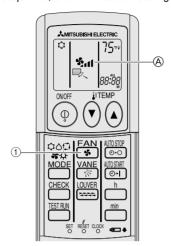
Available temperature ranges are as follows:

Cooling/Drying: 19 - 30 °C Heating: 17 - 28 °C Automatic: 19 - 28 °C

The display flashes either 8 °C - 39 °C to inform you if the room temperature is lower or higher than the displayed temperature.

3.5. Fan speed setting

- Press the Fan Speed button ① as many times as necessary while the system is running.
 - Each press changes the force. The currently selected speed is shown at (A).
 - The change sequence, and the available settings, are as follows.



- 1) Press FAN button to select a desired fan speed.

Fan speed	Remote controller display						
i all speed	(Auto)	Low	Middle 2	Middle 1	High		
4-stage	(%) —	→ % —	→ ½ ₁ —	→ % _d —	→ % :11		
3-stage	(%) —	→ % 1 —	→ %	(Middle) –	→ % ¹¹ 1		
2-stage	(%) —	→ % —			→ %:11		

The wind speeds that can be selected depend on the model.

Note that some units do not provide an "Auto" setting.

The display and the fan speed of the unit will differ in the following situations:

- When the unit is in STAND BY mode or in DEFROST mode.
- Just after the heating mode (while waiting to change to another mode).
- When the temperature of the room is higher than the temperature setting of the unit operating in the heating mode.
- In the dry operation, the indoor fan automatically turns to low-speed operation. Switching of fan speed is impossible.

3.6. Ventillation

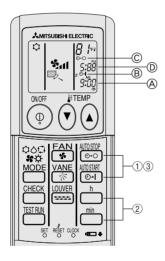
▶ For LOSSNAY combination

3.6.1. For Wireless Remote-controller

- The ventillator will automatically operate when the indoor unit turns on.
- No indication on the wireless remote controller.

4. Timer

4.1. For wireless remote controller



1) Set the current time

- ① Press the CLOCK button using a thin stick and blink the time (A).
- ② Press the in and in button to set the current time.
- ③ Press the CLOCK button using a thin stick.

2) Set the time to start the unit as follows

- 1 Press the button.

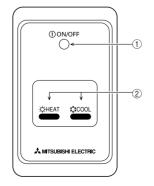
 - The start times is displayed at (A).
- ② Use the 📥 and 🛗 buttons to set the desired time.
- To cancel the ON timer, press the button.

3) Set the time to stop the unit as follows

- 1 Press the button.
 - · Time can be set while the following symbol is blinking.
 - Off time: © STOP is blinking.
 - The stop times is displayed at ①.
- ② Use the and buttons to set the desired time.
- ③ To cancel the OFF timer, press the 😇 button.
- 4) Changing the set times

Press the or to cancel the timer and repeat from 2) or 3).

5. Emergency Operation for Wireless Remote-controller



- ON/OFF lamp (lit when unit is operating; unlit when unit is not operating)
- ② Emergency operation

Pressing the ☼ COOL or ☼ HEAT button selects the following settings.

Operation mode	COOL	HEAT
Preset temperature	24 °C/75 °F	24 °C/75 °F
Fan speed	High	High

6. Care and Cleaning

Cleaning the filters

- Clean the filters using a vacuum cleaner. If you do not have a vacuum cleaner, tap the filters against a solid object to knock off dirt and dust.
- If the filters are especially dirty, wash them in lukewarm water. Take care to rinse off any detergent thoroughly and allow the filters to dry completely before putting them back into the unit.

⚠ Caution:

- Do not dry the filters in direct sunlight or by using a heat source, such as an electric heater: this may warp them.
- Do not wash the filters in hot water (above 50°C), as this may warp
- Make sure that the air filters are always installed. Operating the unit without air filters can cause malfunction.

⚠ Caution:

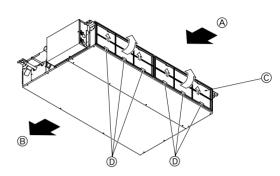
- Before you start cleaning, stop operation and turn OFF the power supply.
- Indoor units are equipped with filters to remove the dust of sucked-in air. Clean the filters using the methods shown in the following sketches.

Filter removal

⚠ Caution:

- . In removing the filter, precautions must be taken to protect your eyes from dust. Also, if you have to climb up on a stool to do the job, be careful not to fall.
- When the filter is removed, do not touch the metallic parts inside the indoor unit, otherwise injury may result.

■ SEZ-KD·VAL



- While lifting the filter knob, pull it.
 - Air intake Air outlet
- (D) Knob

7. Trouble Shooting

Having trouble?	Here is the solution. (Unit is operating normally.)
Air conditioner does not heat or cool well.	 Clean the filter. (Airflow is reduced when the filter is dirty or clogged.) Check the temperature adjustment and adjust the set temperature. Make sure that there is plenty of space around the outdoor unit. Is the indoor unit air intake or outlet blocked? Has a door or window been left open?
When heating operation starts, warm air does not blow from the indoor unit soon.	Warm air does not blow until the indoor unit has sufficiently warmed up.
During heating mode, the air conditioner stops before the set room temperature is reached.	■ When the outdoor temperature is low and the humidity is high, frost may form on the outdoor unit. If this occurs, the outdoor unit performs a defrosting operation. Normal operation should begin after approximately 10 minutes.
When the airflow direction is changed, the vanes always move up and down past the set position before finally stopping at the position.	■ When the airflow direction is changed, the vanes move to the set position after detecting the base position.
A flowing water sound or occasional hissing sound is heard.	■ These sounds can be heard when refrigerant is flowing in the air conditioner or when the refrigerant flow is changing.
A cracking or creaking sound is heard.	■ These sounds can be heard when parts rub against each due to expansion and contraction from temperature changes.
The room has an unpleasant odor.	■ The indoor unit draws in air that contains gases produced from the walls, carpeting, and furniture as well as odors trapped in clothing, and then blows this air back into the room.
A white mist or vapor is emitted from the indoor unit.	 If the indoor temperature and the humidity are high, this condition may occur when operation starts. During defrosting mode, cool airflow may blow down and appear like a mist.
Water or vapor is emitted from the outdoor unit.	 During cooling mode, water may form and drip from the cool pipes and joints. During heating mode, water may form and drip from the heat exchanger. During defrosting mode, water on the heat exchanger evaporates and water vapor may be emitted.
The operation indicator does not appear in the remote controller display.	■ Turn on the power switch. "●" will appear in the remote controller display.
"E" appears in the remote controller display.	■ During central control, "" appears in the remote controller display and air conditioner operation cannot be started or stopped using the remote controller.
When restarting the air conditioner soon after stopping it, it does not operate even though the ON/OFF button is pressed.	■ Wait approximately three minutes. (Operation has stopped to protect the air conditioner.)
Air conditioner operates without the ON/OFF button being pressed.	 ■ Is the on timer set? Press the ON/OFF button to stop operation. ■ Is the air conditioner connected to a central remote controller? Consult the concerned people who control the air conditioner. ■ Does "□" appear in the remote controller display? Consult the concerned people who control the air conditioner. ■ Has the auto recovery feature from power failures been set? Press the ON/OFF button to stop operation.

7. Trouble Shooting

Having trouble?	Here is the solution. (Unit is operating normally.)					
Air conditioner stops without the ON/OFF button being pressed.	■ Is the off timer set? Press the ON/OFF button to restart operation. Is the air conditioner connected to a central remote controller? Consult the concerned people who control the air conditioner. Does " "appear in the remote controller display? Consult the concerned people who control the air conditioner.					
Remote controller timer operation cannot be set.	Are timer settings invalid? If the timer can be set, <u>WEEKLY</u> , <u>SIMPLE</u> , or <u>AUTO OFF</u> appears in the remote controller display.					
"PLEASE WAIT" appears in the remote controller display.	■ The initial settings are being performed. Wait approximately 3 minutes.					
An error code appears in the remote controller display.	 The protection devices have operated to protect the air conditioner. Do not attempt to repair this equipment by yourself. Turn off the power switch immediately and consult your dealer. Be sure to provide the dealer with the model name and information that appeared in the remote controller display. 					
Draining water or motor rotation sound is heard.	■ When cooling operation stops, the drain pump operates and then stops. Wait approximately 3 minutes.					
Noise is louder than specifications.	■ The indoor operation sound level is affected by the acoustics of the particular room as shown in the following table and will be higher than the noise specification, which was measured in an echo-free room.					
	High sound- absorbing rooms Normal rooms Low sound- absorbing rooms					
	Location examples Broadcasting studio, music room, etc. Reception room, hotel lobby, etc. Office, hotel room					
	Noise levels 3 to 7 dB 6 to 10 dB 9 to 13 dB					
Nothing appears in the wireless remote controller display, the display is faint, or signals are not received by the indoor unit unless the remote controller is close.	 ■ The batteries are low. Replace the batteries and press the Reset button. ■ If nothing appears even after the batteries are replaced, make sure that the batteries are installed in the correct directions (+, -). 					
The operation lamp near the receiver for the wireless remote controller on the indoor unit is flashing.	 The self diagnosis function has operated to protect the air conditioner. Do not attempt to repair this equipment by yourself. Turn off the power switch immediately and consult your dealer. Be sure to provide the dealer with the model name. 					

8. Installation, relocation and inspection

Installation place

Avoid installing the air conditioner in the following places.

• Where flammable gas could leak.

⚠ Caution:

Do not install the unit where flammable gas could leak. If gas leaks and collects around the unit, it may cause an explosion.

- · Where there is much machine oil.
- Salty place such as the seaside.
- Where sulfide gas is generated such as a hot spring.
- · Where there is oil splashing or much oily smoke.

⚠ Warning:

If the air conditioner operates but does not cool or heat (depending on model) the room, consult your dealer since there may be a refrigerant leak. Be sure to ask the service representative whether there is refrigerant leakage or not when repairs are carried out.

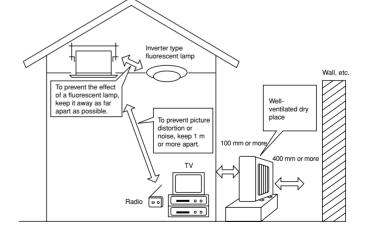
The refrigerant charged in the air conditioner is safe. Refrigerant normally does not leak, however, if refrigerant gas leaks indoors, and comes into contact with the fire of a fan heater, space heater, stove, etc., harmful substances will be generated.

Electrical work

- · Provide an exclusive circuit for power supply of the air conditioner.
- · Be sure to observe the breaker capacity.

⚠ Warning:

- The customer should not install this unit. If the unit is installed incorrectly, fire, electric shock, injury due to a falling unit, water leakage, etc.
 may result.
- Do not connect using branched outlet or an extension cord, and do not attach many loads to one electric outlet.
 A fire or electric shock may result from poor contact, poor insulation, exceeding the permissible current, etc.
 Consult your dealer.



8. Installation, relocation and inspection

⚠ Caution:

Apply grounding

Do not connect a grounding wire to a gas pipe, water pipe, lightning rod or ground wire of a telephone.

If a grounding is incorrect, it may cause an electric shock.

• Install an earth leakage breaker depending on the place where the air conditioner is to be installed (humid place, etc.). If the earth leakage breaker is not installed, it may cause an electric shock.

Inspection and maintenance

- · When the air conditioner is used for several seasons, the capacity may be lowered due to dirt inside the unit.
- · Depending upon the conditions of use, an odor may be generated or dirt, dust, etc. may prevent proper drainage.
- · It is recommended to apply inspection and maintenance (charged) by a specialist in addition to normal maintenance. Consult your dealer.

Also consider operation sound

- Do not put an object around the air outlet of the outdoor unit. It may cause lowering of capacity or increase operating sound.
- · If abnormal sound is heard during operation, consult your dealer.

Relocation

· When the air conditioner is to be removed or reinstalled because of rebuilding, moving, etc., special techniques and work are required.

⚠ Warning:

Repair or relocation should not be done by the customer.

If this is done incorrectly, it may cause a fire, electric shock, injury by dropping of the unit, water leakage, etc. Consult your dealer.

Disposal

· To dispose of this product, consult your dealer.

<Installation for Remote-Controller>

- Use the remote controller holder that is provided to avoid misplacing the remote controller.
- Install the remote controller in a location that meets the following conditions.
 - · Out of the direct sun light
 - · Away from any heat sources
 - · Out of the airflow from the air conditioner (cool or warm)
 - · Where the operation of the remote controller can easily be performed and the display is readily visible to the user
 - · Out of the reach of small children

NOTES:

* If there is a fluorescent light in the room in which the air conditioner is to be installed, turn it on and make sure that the signal from the remote controller can be received by the indoor unit from the intended installation location. When the signal receiving unit receives a signal from the remote controller, a short beeping sound will be heard.

If the air conditioner unit is installed in a room in which a fluorescent light on an electronic lighting control system (i.e., inverter light) is installed, signal interference may occur.

- * Maximum signal receiving distance is approximately 7 meters (Approx. 22 feet). Signal receiving angle is approximately 45 degrees to the right and the left from the center.
- * Install the unit at least 1 meter (Approx. 3 feet) away from the TV or radio.

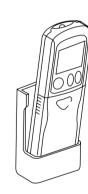
 (If the unit is installed too close to these appliances, signal interference (picture distortion and noise) may occur.)
- Use the tapping screws that are provided to mount the remote controller holder on the wall, and then place the remote controller in the holder.

NOTES:

<Functions not supported by older versions of signal receiving unit >

- Temperature setting in 1 °F increments.
- Control operations that are performed on the controller with the setting other than "Standard 2 °F".

If you have any question, consult your dealer.



9. Specifications

Model		SEZ-KD25VAL SEZ-KD35VAL		SEZ-KD50VAL		SEZ-KD60VAL		SEZ-KD71VAL			
Function		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Power supply						~/N, 230	V, 50Hz				
Capacity	kW	2.5	3.0	3.5	4.0	5.0	5.9	5.5	6.9	7.1	8.1
Сараспу	BTU/h	8,500	10,200	11,900	13,600	17,100	20,100	18,800	23,500	24,200	27,600
Input	kW	0.04	0.04	0.05	0.05	0.07	0.07	0.07	0.07	0.10	0.10
Indoor unit		SEZ-KD25VAL		SEZ-KD35VAL		SEZ-KD50VAL		SEZ-KD60VAL		SEZ-KD71VAL	
Airflow (Lo-Mid-Hi)	CMM	5.5-	7-9	7-9	9-11	10-1	2.5-15	12-	15-18	12-1	16-20
Ext. static pressure	Pa	5/15/	35/50	5/15/3	35/50	5/15	/35/50	5/15	/35/50	5/15/	/35/50
Noise level (Lo-Mid-Hi)	dB	23-2	6-30	23-2	8-33	30-3	4-37	30-3	4-38	30-3	5-40
Weight	kg	1	8	2	1	2	3	2	7	27	7
Outdoor unit		SUZ-KA25VA		SUZ-KA35VA		SUZ-KA50VA		SUZ-KA60VA		SUZ-KA71VA	
Noise level	dB	4	6	4	8	5	5	5	5	5	5
Refrigerant R410A	kg	0.9	90	1.0	05	1.	6	1.	.8	2.	0
Weight	kg	3	3	3	5	5	3	5	3	58	3

Notes: 1. Rating conditions (cooling) Indoor: 27°C DB, 19°C WB Outdoor: 35°C DB

2. Rating conditions (heating) Indoor: 20°C DB Outdoor: 7°C DB, 6°C WB

3. Specifications subject to change without notice.

4. The external static pressure is set to 15 Pa at factory shipment.

Guaranteed operating range

		Indoor	Outdoor		
		ilidool	KD25, KD35	KD50, KD60, KD71	
Cooling	Upper limit	32°C DB, 23°C WB	46°C DB, –	43°C DB, -	
Cooling	Lower limit	21°C DB, 15°C WB	-10°C	DB, –	
Hooting	Upper limit	27°C DB, –	24°C DB,	18°C WB	
Heating	Lower limit	20°C DB, -	-10°C DB,	-11°C WB	

Units should be installed by licensed electric contractor accordingly to local code requirement.

This product is designed and intended for use in the residential, commercial and light-industrial environment.

The product at hand is • EU regulations:

- Low Voltage Directive 2006/95/ EC
- based on the following Electromagnetic Compatibility Directive 89/ 336/ EEC, 2004/108/ EC

Please be sure to put the contact address/telephone number on this manual before handing it to the customer.	



HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN