

## **SPLIT-TYPE AIR CONDITIONERS**

## INDOOR UNIT

MSZ-AY25VGKP	MSZ-AY35VGKP	MSZ-AY42VGKP	MSZ-AY50VGKP
MSZ-AY25VGK	MSZ-AY35VGK	MSZ-AY42VGK	MSZ-AY50VGK
MSZ-AY25VG	MSZ-AY35VG	MSZ-AY42VG	MSZ-AY50VG



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## SAFETY PRECAUTIONS

### Meanings of symbols displayed on indoor unit and/or outdoor unit

	WARNING (Risk of fire)	This unit uses a flammable refrigerant. If refrigerant leaks and comes in contact with fire or heating part, it will create harmful gas and there is risk of fire.	
	Read the OPERATING INSTRUCTIONS carefully before operation.		
	Service personnel are required to carefully read the OPERATING INSTRUCTIONS and INSTALLATION MANUAL before operation.		
[]i	Further information is available in the OPERATING INSTRUCTIONS, INSTALLATION MANUAL, and the like.		

• Since rotating parts and parts which could cause an electric shock are used in this product, be sure to read these "Safety Precautions" before use.

- · Since the cautionary items shown here are important for safety, be sure to observe them.
- · After reading this manual, keep it together with the installation manual in a handy place for easy reference.
- Wi-Fi<sup>®</sup> is a registered trademark of Wi-Fi Alliance<sup>®</sup>.

#### Marks and their meanings

	Incorrect handling could cause serious hazard, such as death, serious injury, etc. with a high probability.
CAUTION :	Incorrect handling could cause serious hazard depending on the conditions.

Do not connect the power cord to an intermediate point, us extension cord, or connect multiple devices to a single AC out • This may cause overheating, fire, or electric shock.				
	<ul> <li>Make sure the power plug is free of dirt and insert it securely into the outlet.</li> <li>A dirty plug may cause fire or electric shock.</li> </ul>			
	Do not bundle, pull, damage, or modify the power cord, and do not apply heat or place heavy objects on it. • This may cause fire or electric shock.			

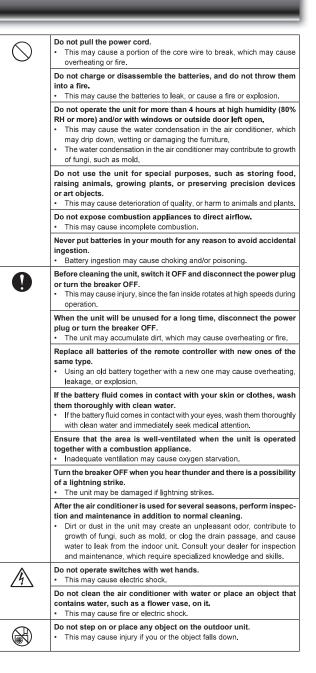
#### Meanings of symbols used in this manual

- $\bigcirc$ : Be sure not to do.
- 0 : Be sure to follow the instruction.
- Ì : Never insert your finger or stick, etc.
- : Never step onto the indoor/outdoor unit and do not put anything on them. 8
- A : Danger of electric shock. Be careful.
- e, : Be sure to disconnect the power supply plug from the power outlet.
- Ð : Be sure to shut off the power.
- $\mathbb{A}$ : Risk of fire.
- 8 : Never touch with wet hand.
- $\otimes$ : Never splash water on the unit.

$\bigcirc$	Do not turn the breaker OFF/ON or disconnect/connect the power plug during operation. • This may create sparks, which can cause fire. • After the indoor unit is switched OFF with the remote controller, make sure to turn the breaker OFF or disconnect the power plug.
	Do not expose your body directly to cool air for a prolonged length of time. • This could be detrimental to your health.

## SAFETY PRECAUTIONS

$\bigcirc$	<ul> <li>The unit should not be installed, relocated, disassembled, altered, or repaired by the user.</li> <li>An improperly handled air conditioner may cause fire, electric shock, injury, or water leakage, etc. Consult your dealer.</li> <li>If the power supply cord is damaged, it must be replaced by the manu-</li> </ul>
	<ul> <li>If the power supply cord is damaged, it must be replaced by the manu- facturer or its service agent in order to avoid a hazard.</li> </ul>
	<ul> <li>When installing, relocating, or servicing the unit, make sure that no substance other than the specified refrigerant (R32) enters the refrigerant circuit.</li> <li>Any presence of foreign substance such as air can cause abnormal pressure rise and may result in explosion or injury.</li> <li>The use of any refrigerant other than that specified for the system will cause mechanical failure, system malfunction, or unit breakdown. In the worst case, this could lead to a serious impediment to securing product safety.</li> </ul>
	This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of ex- perience 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.
$\bigcirc$	Do not insert your finger, a stick, or other objects into the air inlet or outlet. • This may cause injury, since the fan inside rotates at high speeds during operation.
82	<ul> <li>In case of an abnormal condition (such as a burning smell), stop the air conditioner and disconnect the power plug or turn the breaker OFF.</li> <li>A continued operation in the abnormal state may cause a malfunction, fire, or electric shock. In this case, consult your dealer.</li> </ul>
	When the air conditioner does not cool or heat, there is a possibility of refrigerant leakage. If any refrigerant leakage is found, stop operations and ventilate the room well and consult your dealer immediately. If a repair involves recharging the unit with refrigerant, ask the service technician for details.  • The refrigerant used in the air conditioner is not harmful. Normally, it does not leak. However, if refrigerant leaks and comes in contact with fire or heating part of such a fan heater, kerosene heater, or cooking stove, it will create harmful gas and there is risk of fire.
	<ul> <li>The user should never attempt to wash the inside of the indoor unit.</li> <li>Should the inside of the unit require cleaning, contact your dealer.</li> <li>Unsuitable detergent may cause damage to plastic material inside the unit, which may result in water leakage. Should detergent come in contact with electrical parts or the motor, it will result in a malfunction, smoke, or fire.</li> <li>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).</li> <li>Be aware that refrigerants may not contain an odour.</li> <li>Do not use means to accelerate the defrosting process or to clean the appliance, other than those recommended by the manufacturer.</li> </ul>
	The indoor unit must be installed in rooms which exceed the floor space specified. Please consult your dealer.
	AY25/35: 2.0 m <sup>2</sup> , AY42: 2.5 m <sup>2</sup> , AY50: 3.2 m <sup>2</sup> When the indoor unit is connected to the multi type outdoor unit of R32 refrigerant, please consult your dealer about the floor space specified.
0	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. Do not touch the air purifying device from the top of the indoor unit during operation.
$\bigcirc$	Do not touch the air inlet or the aluminum fins of the indoor/outdoor unit.
$\sim$	This may cause injury. Do not use insecticides or flammable sprays on the unit.
	This may cause a fire or deformation of the unit. Do not expose pets or houseplants to direct airflow. This may cause a fire of the test and
	This may cause injury to the pets or plants. Do not place other electric appliances or furniture under the indoor/ outdoor unit.     Water may drip down from the unit, which may cause damage or     metication.
	malfunction. Do not leave the unit on a damaged installation stand. The unit may fall and cause injury.
	Do not step on an unstable bench to operate or clean the unit. This may cause injury if you fall down



### IMPORTANT

Dirty filters cause condensation in the air conditioner which will contribute to the growth of fungi such as mold. It is therefore recommended to clean air filters every 2 weeks.

Before starting the operation, ensure that the horizontal vanes are in the closed position. If operation starts when the horizontal vanes are in the open position, they may not return to the correct position.

## SAFETY PRECAUTIONS

## For installation

$\bigcirc$	<ul> <li>Consult your dealer for installing the air conditioner.</li> <li>It should not be installed by the user since installation requires specialized knowledge and skills. An improperly installed air conditioner may cause water leakage, fire, or electric shock.</li> </ul>				
	<ul> <li>Provide a dedicated power supply for the air conditioner.</li> <li>A non-dedicated power supply may cause overheating or fire.</li> </ul>				
	<ul> <li>Do not install the unit where flammable gas could leak.</li> <li>If gas leaks and accumulates around the outdoor unit, it may cause an explosion.</li> </ul>				
	<ul> <li>Earth the unit correctly.</li> <li>Do not connect the earth wire to a gas pipe, water pipe, lightning rod, or a telephone earth wire. Improper earthing may cause electric shock.</li> </ul>				
0	Install an earth leakage breaker depending on the installation location of the air conditioner (such as highly humid areas). If an earth leakage breaker is not installed, it may cause electric shock.				
	Ensure that the drain water is properly drained. <ul> <li>If the drain passage is improper, water may drip down from the indoor/</li> </ul>				

outdoor unit, wetting and damaging the furniture.

ł

For Wi-Fi<sup>®</sup> interface

#### In case of an abnormal condition

Immediately stop operating the air conditioner and consult your dealer.

(Improper h injury or dea	WARNING andling may have serious consequences, including serious ath.)		
$\bigcirc$	This appliance can be used by children aged from 8 years and abov and persons with reduced physical, sensory or mental capabilities of lack of experience and knowledge if they have been given superv sion or instruction concerning use of the appliance in a safe way an understand the hazards involved.		
	Children shall not play with the appliance. Cleaning and user mainten nance shall not be made by children without supervision.		
	Do not use the Wi-Fi® interface nearby the medical electrical equip ment or people who have a medical device such as a cardiac pace maker or an implantable cardioverter-defibrillator. It can cause an accident due to malfunctions of the medical equipmen or device.		
	Do not install the Wi-Fi® interface nearby the automatic control devices such as automatic doors or fire alarms. • It can cause accidents due to malfunctions.		
	<ul> <li>Do not touch the Wi-Fi<sup>®</sup> interface with wet hands.</li> <li>It can cause damage to the device, electric shock, or fire.</li> </ul>		
$\bigcirc$	<ul> <li>Do not splash water on the Wi-Fi® interface or use it in a bathroom.</li> <li>It can cause damage to the device, electric shock, or fire.</li> </ul>		
0	When the Wi-Fi® interface is dropped, or the holder or cable is dam aged, disconnect the power supply plug or turn the breaker OFF. • It may cause fire or electric shock. In this case, consult your dealer.		
(Improper h to building.)	Improper handling may have consequences, including injury or damage o building.)		
$\bigcirc$	Do not step on unstable stepstool to set up or clean the Wi- interface. • It may cause injury if you fall down.		
	Do not use the Wi-Fi® interface nearby other wireless devices, micro waves, cordless phones, or facsimiles. • It can cause malfunctions.		

## Disposal

To dispose of this product, consult your dealer.

#### Note: '

This symbol mark is for EU countries only. This symbol mark is according to the directive 2012/19/ EU Article 14 Information for users and Annex IX, and/ or to the directive 2006/66/EC Article 20 Information for end-users and Annex II.

Fig. 1

Your MITSUBISHI ELECTRIC product is designed and manufactured with high quality materials and components which can be recycled and/or reused. This symbol means that electrical and electronic equipment, batteries and accumulators, at their end-of-life, should be disposed of separately from your household waste.

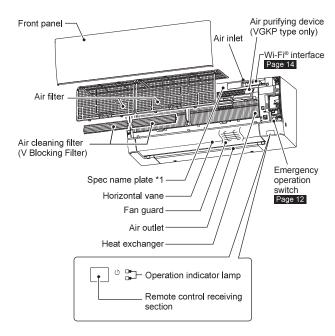
household waste. If a chemical symbol is printed beneath the symbol (Fig. 1), this chemical symbol means that the battery or accumulator contains a heavy metal at a certain concentration. This will be indicated as follows: Hg: mercury (0.0005%), Cd: cadmium (0.002%), Pb: lead (0.004%) In the European Union there are separate collection systems for used electrical

and electronic products, batteries and accumulators. Please, dispose of this equipment, batteries and accumulators correctly at your local community waste collection/recycling centre.

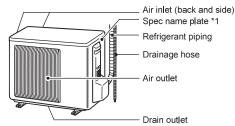
Please, help us to conserve the environment we live in!

## NAME OF EACH PART

### **Indoor unit**



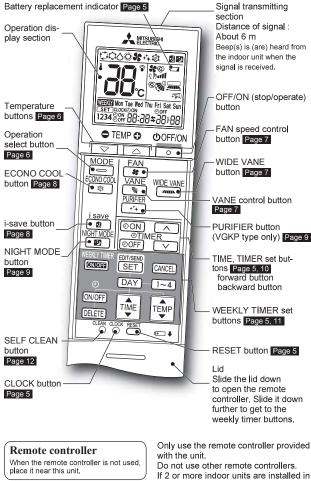
### **Outdoor unit**





\*1 The manufacturing year and month are indicated on the spec name plate.

## **Remote controller**



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controller. Slide it down further to get to the weekly timer buttons

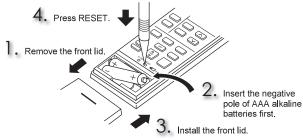
Only use the remote controller provided

If 2 or more indoor units are installed in proximity to one another, an indoor unit that is not intended to be operated may respond to the remote controller.

## **PREPARATION BEFORE OPERATION**

Before operation: Insert the power supply plug into the power outlet and/or turn the breaker on.

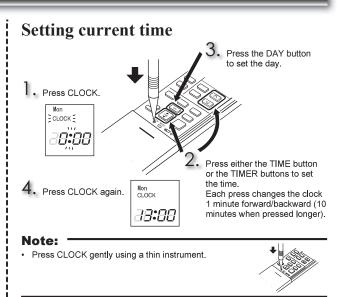
### Installing the remote controller batteries



#### Note:

ΕN

- Make sure the polarity of the batteries is correct.
- Do not use manganese batteries and leaking batteries. The remote controller could malfunction
- Do not use rechargeable batteries.
- The battery replacement indicator lights up when the battery is running low. In about 7 days after the indicator starts lights up, the remote controller stops working.
- Replace all batteries with new ones of the same type.
- Batteries can be used for approximately 1 year. However, batteries with expired shelf lives last shorter.
- Press RESET gently using a thin instrument. If the RESET button is not pressed, the remote controller may not operate correctly.



#### Note:

How to set remote controller exclusively for a particular indoor unit A maximum of 4 indoor units with wireless remote controllers can be used in a room.

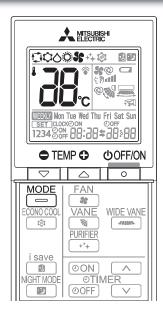
To operate the indoor units individually with each remote controller, assign a number to each remote controller according to the number of the indoor unit. This setting can be set only when all the following conditions are met:

- The remote controller is powered OFF
- (1) Hold down  $1 \sim 4$  button on the remote controller for 2 seconds to enter the pairing mode.
- (2) Press  $1 \sim 4$  button again and assign a number to each remote controller. Each press of  $1 \sim 4$  button advances the number in the following order: 1  $\rightarrow$  $2 \rightarrow 3 \rightarrow 4$ . (3) Press SET button to complete the pairing setting.

After you turn the breaker ON, the remote controller that first sends a signal to an indoor unit will be regarded as the remote controller for the indoor unit. Once they are set, the indoor unit will only receive the signal from the assigned remote controller afterwards.

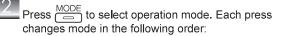
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## Selecting operation modes



### 也OFF/ON

Press o to start the operation.



0 Press  $\square$  or  $\square$  to set the temperature. Each press raises or lowers the temperature by 1°C.

也OFF/ON

Press or to stop the operation.

### AUTO mode (Auto change over)

The unit selects the operation mode according to the difference between the room temperature and the set temperature. During AUTO mode, the unit changes mode (COOL $\leftrightarrow$ HEAT) when the room temperature is about 2°C away from the set temperature for more than 15 minutes.

#### Note:

Auto Mode is not recommended if this indoor unit is connected to a MXZ type outdoor unit. When several indoor units are operated simultaneously, the unit may not be able to switch operation mode between COOL and HEAT. In this case, the indoor unit becomes standby mode (Refer to table of Operation indicator lamp).

### 🗘 COOL mode

Enjoy cool air at your desired temperature.

#### Note: '

Do not operate COOL mode at very low outside temperatures (less than -10°C). Water condensed in the unit may drip and wet or damage furniture, etc.

#### 🖒 DRY mode

Dehumidify your room. The room may be cooled slightly. Temperature cannot be set during DRY mode.

#### O HEAT mode

Enjoy warm air at your desired temperature.

#### 🛠 FAN mode

Circulate the air in your room.

#### Note:

After COOL/DRY mode operation, it is recommended to operate in the FAN mode to dry inside the indoor unit.

### Note:

#### **Multi system operation**

Two or more indoor units can be operated by one outdoor unit. When several indoor units are operated simultaneously, cooling/dry/fan and heating operations cannot be done at the same time. When COOL/DRY/FAN is selected with one unit and HEAT with another or vice versa, the unit selected last goes into standby mode.

#### **Operation indicator lamp**

The operation indicator lamp shows the operation state of the unit.

For VGK type

In all a set and	On continue state	Room temperature
Indication	Indication Operation state	
<del>淡</del> ※		
*	The room temperature is approaching the set temperature	About 1 to 2°C from set temperature
<del>```</del> ☆	Standby mode (only during multi system operation)	_

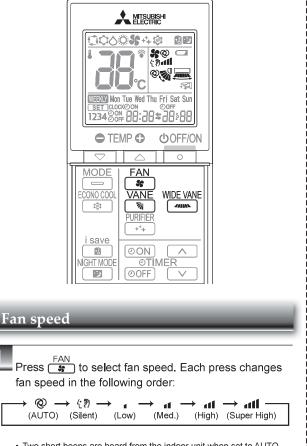
i ∦ Lit ○ Not lit 淡 Blinking

For VGKP type

Indication	Operation state	Room temperature
* *	Standby mode (only during multi system operation)	_

⋇ Lit ☆ Blinking

## FAN SPEED AND AIRFLOW DIRECTION ADJUSTMENT

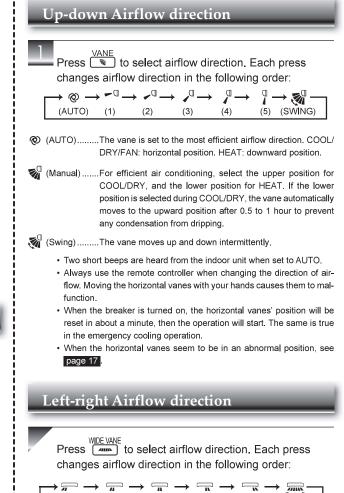


- Two short beeps are heard from the indoor unit when set to AUTO.
- Use higher fan speed to cool/heat the room quicker. It is recommended to lower the fan speed once the room is cool/warm.
- Use lower fan speed for quiet operation.

#### Note:

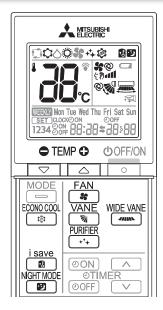
#### **Multi system operation**

When several indoor units are operated simultaneously by one outdoor unit for heating operation, the temperature of the airflow may be low. In this case, it is recommended to set the fan speed to AUTO.



(SWING)

## -SAVE OPERATION



A simplified set back function enables to recall the preferred (preset) setting with a single push of the  $\boxed{1 \text{ save}}$  button. Press the button again and you can go back to the previous setting in an instance.

Press ave during COOL, ECONO COOL, HEAT mode or NIGHT MODE operation to select i-save mode.

Set the temperature, fan speed, and airflow direction. • The same setting is selected from the next time by simply pressing issue

- Two settings can be saved. (One for COOL/ECONO COOL, one for HEAT)
- Select the appropriate temperature, fan speed, and airflow direction according to your room.

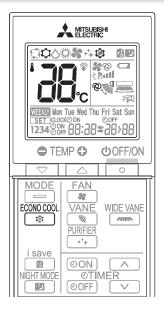
Press again to cancel i-save operation.

• i-save operation also is cancelled when the MODE button is pressed.

### Note:

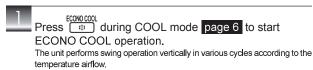
- Example of use:
- 1. Low energy mode
- Set the temperature 2°C to 3°C warmer in COOL and cooler in HEAT mode. This setting is suitable for unoccupied room, and while you are sleeping. 2. Saving frequently used settings
- Save your preferred setting for COOL, ECONO COOL, HEAT mode and NIGHT MODE operation. This enables you to select your preferred setting with a single push of the button.

## Econo cool operation



Swing airflow (change of airflow) makes you feel cooler than stationary airflow.

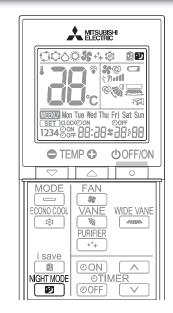
The set temperature and the airflow direction are automatically changed by the microprocessor. It is possible to perform cooling operation with keeping comfort. As a result energy can be saved.



Press again to cancel ECONO COOL operation.

ECONO COOL operation is also cancelled when the VANE button is pressed.

## IGHT MODE OPERATION



NIGHT MODE operation changes the brightness of the operation indicator, disables the beep sound and limits the noise level of the outdoor unit.

NIGHT MODE Press D during operation to activate NIGHT MODE operation.

- The operation indicator lamp dims.
- · The beep sound will be disabled except that emitted when the operation is started or stopped.
- · Noise level of the outdoor unit will be lower than that mentioned in SPECIFICATIONS.

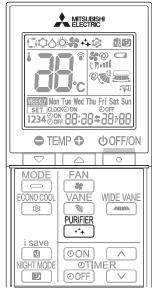
NIGHT MODE Press 😰 again to cancel NIGHT MODE operation.

#### Note:

- The cooling/heating capacity may drop.
- Noise level of the outdoor unit may not change after start-up of the unit, dur-ing the protection operation, or depending on other operating conditions. The fan speed of the indoor unit will not change.
- The operation indicator lamp will be hard to be seen in a bright room.
- Noise level of the outdoor unit will not decrease during Multi system operation.

## AIR PURIFYING OPERATION

#### <VGKP type only>



In the AIR PURIFYING operation, the indoor unit built-in device reduces airborne fungi, viruses, mold, and allergens.



Press (+++) to start AIR PURIFYING operation. • AIR PURIFYING lamp turns on. (Display section)

#### Note:

QUICK AIR PURIFYING SET QUICK AIR PURIFYING SET PURIFIER When the air conditioner is off, pressing ++ starts AIR PURYFYING operation in FAN mode.



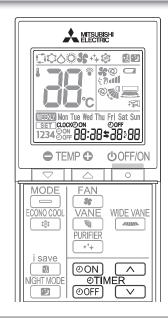
Press +++ again to cancel AIR PURIFYING operation.

• AIR PURIFYING lamp turns off. (Display section)

#### Note:

- Never touch the air purifying device during operation. Although the air purifying device is safety-conscious design, touching this device could be the cause of trouble as this device discharge high voltage electricity.
- A "hissing" sound may be heard during the air purifying operation. This sound is produced when plasma is being discharged. This is not a malfunction.
- Air purifying lamp does not turn on if the front panel is not closed completely.

# T imer operation (on/off timer)



Press  $\bigcirc$  ON or  $\bigcirc$  F during operation to set the timer.

OON (ON timer) : The unit turns ON at the set time.

OFF (OFF timer) : The unit turns OFF at the set time.

\* ON or OFF blinks.

\* Make sure that the current time and day are set correctly. Page 5

Press (forward) and (backward) to set the time of timer.

Each press changes the set time 10 minutes forward/backward.  $\bullet\,$  Set the timer while  $\odot o N$  or  $\odot o FF$  is blinking.

Press OON or OOFF again to cancel timer.

#### Note: -

 $\mathbf{\mathcal{O}}$ 

- ON and OFF timers can be set together. \$\$ mark indicates the order of timer operations.
- If power failure occurs while ON/OFF timer is set, see Page 12 "Auto restart function".

8:00

## $N_{ m Eekly}$ timer operation

A maximum of 4 ON or OFF timers can be set for individual days of the week.
A maximum of 28 ON or OFF timers can be set for a week.

#### E.g. : Runs at 24°C from waking up to leaving home, and runs at 27°C from getting home to going to bed on weekdays. Runs at 27°C from waking up late to going bed early on weekends. Setting4 Setting1 Setting2 Setting3 Mon ON OFF ON OFF ł 24°C 27°C Fri 17:30 6:00 8:30 22:00 Setting1 Setting2 Sat OFF ON 1 27°C

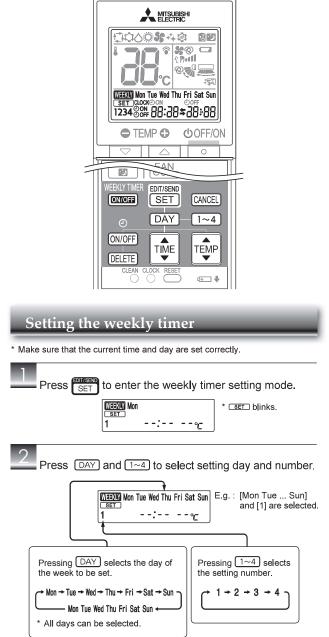
#### Note:

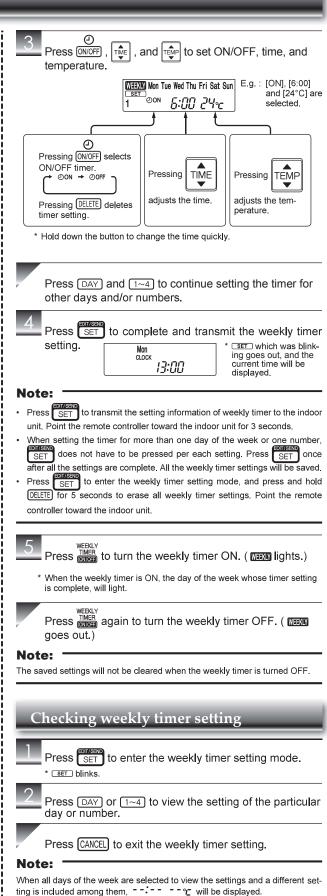
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The simple ON/OFF timer setting is available while the weekly timer is on. In this case, the ON/OFF timer has priority over the weekly timer; the weekly timer operation will start again after the simple ON/OFF timer is complete.

21:00





## Emergency operation

#### When the remote controller cannot be used...

Emergency operation can be activated by pressing the emergency operation switch (E.O. SW) on the indoor unit.

> Each time the E.O. SW is pressed, the operation changes in the following order:

#### **Operation indicator lamp** Emergency COOL $\cap$ t Ο Emergency HEAT Ì t Ó Set temperature : 24°C Stop Fan speed : Medium 0 Horizontal vane : Auto

#### Note:

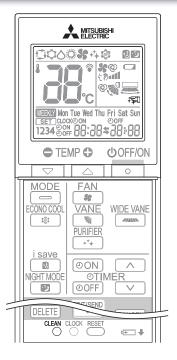
- The first 30 minutes of operation is test run. Temperature control does not work, and fan speed is set to High.
- In the emergency heating operation, the fan speed gradually rises to blow out warm air.
- In the emergency cooling operation, the horizontal vanes' position will be reset in about a minute, then the operation will start.

## UTO RESTART FUNCTION

If a power failure occurs or the main power is turned off during operation, "Auto restart function" automatically starts operation in the same mode as the one set with the remote controller just before the shutoff of the main power. When timer is set, timer setting is cancelled and the unit starts operation when power is resumed.

If you do not want to use this function, please consult the service representative because the setting of the unit needs to be changed.

## Self clean operation



SELF CLEAN operation helps to keep the unit clean and prevents mold growth by performing FAN operation for about 25 minutes. It is recommended to keep SELF CLEAN operation active at all times.



Press of to activate SELF CLEAN operation.

- The unit performs SELF CLEAN operation when it is stopped with the [OFF/ON] or OFF timer after COOL/DRY operation. Operation indicator lamp turns on. (Display section)
- · SELF CLEAN operation is not performed when: COOL/DRY is operated less than 3 minutes.

Press CLEAN again to deactivate SELF CLEAN operation. Pressing [OFF/ON] does not deactivate SELF CLEAN operation.

#### Note:

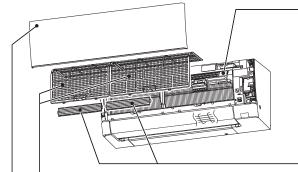
- Fan is stopped for the first 3 minutes of SELF CLEAN operation.
- During multi system operation, air from the unit may become warm. In this case, SELF CLEAN operation is cancelled automatically to prevent undesirable rise in room temperature.



#### Instructions:

- Switch off the power supply or turn off the breaker before cleaning.

- Be careful not to touch the metal parts with your hands. Do not use benzine, thinner, polishing powder, or insecticide. When dirt stands out, wash it with kitchen neutral detergent diluted with lukewarm water to the specified concentration, then wipe off the detergent with a damp towel.



### Air filter (Air purifying filter)

### Clean every 2 weeks

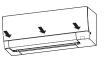
- Remove dirt by a vacuum cleaner, or rinse with water.
- · After washing with water, dry it well in shade.

### **Front panel**



#### 1. Lift the front panel until a "click" is heard.

- 2. Hold the hinges and pull to remove as shown in the illustration above.
  - Wipe with a soft dry cloth or rinse it with water.
  - Do not soak it in water for more than two hours.
  - Dry it well in shade before installing it.
- 3. Install the front panel by following the removal procedure in reverse. Close the front panel securely and press the positions indicated by the arrows.



Do not use a scrubbing brush, a hard sponge, or the like.

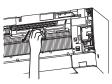
- Do not soak or rinse the horizontal vane.
- Do not use water hotter than 50°C.
- Do not expose parts to direct sunlight, heat, or fire to dry.
- Do not apply excessive force on the fan as it may cause cracks or breakage.

### Air purifying device (VGKP type only)

Every 3 months:

#### • Remove dirt by a vacuum cleaner. When dirt cannot be removed by vacuum cleaning:

- Soak the filter together with its frame in lukewarm water and rinse it.
- After washing, dry it well in shade,



### Air cleaning filter (V Blocking Filter, VGKP type: option)

#### Every 3 months:

- Remove dirt by a vacuum cleaner.
- When dirt cannot be removed by vacuum cleaning:
- Soak the filter and its frame in lukewarm water before rinsing it.
- After washing, dry it well in shade. Install all tabs of the air filter. Every year:
- - Replace it with a new air cleaning filter for best performance. ##### Parts Number MAC-2470FT-E



Pull to remove from the air filter

#### Important

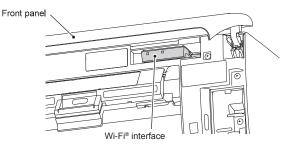
- Clean the filters regularly for best performance and to reduce power consumption.
- Dirty filters cause condensation in the air conditioner which will contribute to the growth of fungi such as mold. It is therefore recommended to clean air filters every 2 weeks.

This information is based on REGULATION (EU) No 528/2012

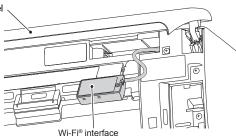
MODEL NAME	Treated Article (Parts name)	Active Substances (CAS No.)	Property	Instruction for Use (Safe handling information)
MSZ-AY25/35/42/50VGKP MSZ-AY25/35/42/50VGK MSZ-AY25/35/42/50VG	FILTER	Dimethyloctadecyl[3-(trimethoxysilyl) propyl]ammonium chloride (27668-52-6) Silver sodium hydrogen zirconium phosphate (265647-11-8) 2-octyl-2H-isothiazol-3-one (OIT) (26530-20-1)	Antivirus Antibacterial Antimold	<ul> <li>Use this product in line with the instruction manual indications and for the intended purpose only.</li> <li>Do not put into mouth. Keep away from children.</li> </ul>
MAC-2470FT-E	FILTER	Dimethyloctadecyl[3-(trimethoxysilyl) propyl]ammonium chloride (27668-52-6)	Antivirus Antibacterial Antimold	<ul> <li>Use this product in line with the instruction manual indications and for the intended purpose only.</li> <li>Do not put into mouth. Keep away from children.</li> </ul>

## i-Fi® INTERFACE SETTING UP (VGKP/VGK type only)

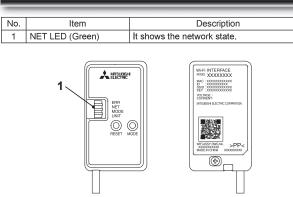
This Wi-Fi® interface, communicates the status information and controls the commands from the MELCloud by connecting to the indoor unit.



Front panel



### Wi-Fi<sup>®</sup> interface introduction



#### Setting up

Set up a connection between the Wi-Fi® interface and the router.

#### Note:

Setup is possible only after operating the air conditioner using the wireless remote controller.

For MELCloud User Manual, please go to the website below. https://www.melcloud.com/Support

### Selecting a mode

The Wi-Fi® interface has to be paired with the Router in order for communication between the indoor unit and MELCloud to begin. There are 2 methods of pairing the Wi-Fi® interface with the Router: · WPS-PUSH mode

· Access Point mode

The mode to be set depends on whether your Router has the WPS button.

Please use the pairing mode most suitable for your system.

Follow the instructions below to set the pairing mode with Remote controller. Set up the Wi-Fi® interface and the Router again when the Router has been replaced

#### Note:

#### To reset connection and set up the Wi-Fi® interface and the router again

- Hold down the Temperature for 5 seconds. Select " 2" by pressing Temperature C and
- · Point the remote controller toward the indoor OFF/ON unit and press the 0

TEMP O 也OFF/ON

WPS-Push mode

The indoor unit beeps 3 times when resetting is complete.

### Setting up in WPS-PUSH mode

#### To enter the mode

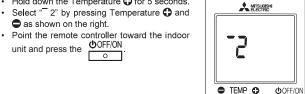
as shown on the right.

unit and press the

Hold down the Temperature 🗘 for 5 seconds Select "2" by pressing Temperature C and

OFF/ON

0



#### Connect the Router to the air conditioner.

Make sure that the LED indication is as shown below. Push WPS button of the Router within 2 minutes after the mode selec-

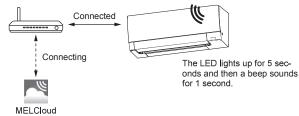
tion has completed.

The WPS-PUSH mode will return to initial state if WPS button is not pressed for 2 minutes.



The LED lights up for 3 seconds then flashes twice A beep sounds as the LED flashes. This series of actions is repeated.

LED indication will be as shown below when connection between the Router and Wi-Fi® interface is completed and connection to MELCloud starts.



If the indication LED does not change or flashes 5 times, connection fails. Please reset connection and setup the Wi-Fi® interface and the Router again. Main Causes that WPS failed are as follows.

Communication distance (from the Wi-Fi® interface to Router), Router settings (encryption, authentication, limit of connections, etc.)

## ${\sf W}$ i-Fi $^{ ext{B}}$ INTERFACE SETTING UP (VGKP/VGK type only)

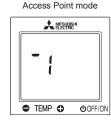
#### Setting up in Access Point mode

Complete the setting up in the Access Point mode within 10 minutes.

#### To enter the mode

- Select "
   1" by pressing Temperature 

   and
- as shown on the right.
- Point the remote controller toward the indoor unit and press the OFF/ON



### EN

Connect your smartphone to the air conditioner.

Make sure that the LED indication is as shown below. On the Wi-Fi® Setting Screen on your smartphone, select SSID and enter KEY, which are printed on the information label.



Wi-Fi® interface Other Smartphone

The LED lights up for 3 seconds then flashes once. A beep sounds as the LED flashes. This series of actions is repeated.

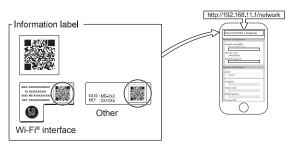
#### Note:

- Check Wi-Fi<sup>®</sup> setting of your smartphone if SSID does not appear on it.
- Enter KEY again if SSID appears on your smartphone, but it cannot connect to the Wi-Fi<sup>®</sup> interface.
- The LED indication does not change or flashes 5 times if connection fails. In that case, reset connection and set up the Wi-Fi® interface and the router again.

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Access URL (http://192.168.11.1/network) by any of the following methods to display the setting screen.

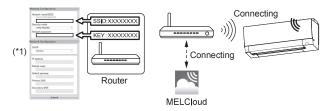
- · Scan the matrix barcode on the information label.
- Type the URL (http://192.168.11 1/network) in the web browser.



## 3

Register the information of the Router on the air conditioner.

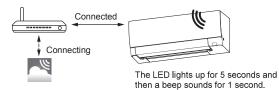
In the displayed window, select Dynamic in DHCP (\*1) and enter the information of Router, then tap the Submit button.



#### Note:

- If you want to use Static, select Static in DHCP (\*1) and enter the information of Router and network, then tap the Submit button.
- LED indication will return to initial state, if the connection fails.
- · LED flashing and beep sounds will stop when the connection is completed.

LED indication will be as shown below when connection between the Router and Wi-Fi<sup>®</sup> interface is completed and connection to MELCloud starts.



#### Note:

It may take several minutes to show the indication above. The LED indication does not change or flashes 5 times if connection fails. In that case, reset connection and set up the Wi-Fi<sup>®</sup> interface and the router again.

## 

### NET LED

NET LED flashing indicates that the Wi-Fi® interface is communicating with the router.

### When it doesn't connect well

Check the following, and pair the Wi-Fi® interface and the Router according to Selecting a mode.

- Make sure that the communication distance is not too far between the Wi-Fi<sup>®</sup> interface and the Router.
- Make sure that the Router uses WPA2-AES encryption.
- · Make sure that the number of connected devices to the Router does not exceed the limit.
- Make sure that DHCP is enabled, or check IP address setting of the Wi-Fi<sup>®</sup> interface.
- Check DNS settings of the Router, or check DNS address of the Wi-Fi<sup>®</sup> interface.
- · Check if the Router is connected to Internet.
- Set up the Wi-Fi® interface after operating the air conditioner using the wireless remote controller at least once.

If the connection fails even after checking the above, set up the Wi-Fi® interface and the router again by the following method.

- Hold down the Temperature for 5 seconds.
- 也OFF/ON • Point the remote controller toward the indoor unit and press the 0
- The indoor unit beeps 3 times when resetting is complete.

#### [About trademarks]

- WPS is the connection via Wi-Fi Protected Setup™.
- "Wi-Fi®", "Wi-Fi Protected Setup™", "WPA2™" are trademarks or registered trademarks of the Wi-Fi Alliance®.

The Wi-Fi® interface uses Open Source Software. To view the Open Source software licence(s), please go to the following website whilst connected to the Wi-Fi® interface during the Access Point mode. http://192.168.11.1/license

#### Note:

- Ensure that the Router supports the WPA2-AES encryption setting before starting the Wi-Fi® interface setup.
- The End user should read and accept the terms and conditions of the Wi-Fi® service before using this Wi-Fi® interface.
- To complete connection of this Wi-Fi® interface to the Wi-Fi® service, the Router may be required.
- . This Wi-Fi® interface will not commence transmission of any operational data from the system until the End user registers and accepts the terms and conditions of the Wi-Fi® service.
- This Wi-Fi® interface should not be installed and connected to any Mitsubishi Electric system which is to provide application critical cooling or heating.
- Please write down the information regarding the Wi-Fi® interface setting on the last page of this manual, when you set up this Wi-Fi® interface.
- At the time of relocation or disposal, reset the Wi-Fi® interface to the factory default.

Mitsubishi Electric's Wi-Fi® interface is designed for communication to Mitsubishi Electric's MELCloud Wi-Fi® service. Mitsubishi Electric is not responsible for any (i) underperformance of a system or any product;

(ii) system or product fault; or (iii) loss or damage to any system or product; which is caused by or arises from connection to and/or use of any third party Wi-Fi® interface or any third party Wi-Fi® service with Mitsubishi Electric equipment.

For the latest information regarding MELCloud from Mitsubishi Electric Corporation, please visit www.melcloud.com.

## When you think that trouble has occurred

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Even if these items are checked, when the unit does not recover from the trouble, stop using the air conditioner and consult your dealer.

Symptom	Explanation & Check points
Indoor Unit	
The unit cannot be operated.	<ul> <li>Is the breaker turned on?</li> <li>Is the power supply plug connected?</li> <li>Is the ON timer set? Page 10</li> </ul>
The horizontal vane does not move.	<ul> <li>Are the horizontal vane and the vertical vane installed correctly?</li> <li>Is the fan guard deformed?</li> <li>When the breaker is turned on, the horizontal vanes' position will be reset in about a minute. After the reset has completed, the normal hori- zontal vanes' operation resumes. The same is true in the emergency cooling operation.</li> </ul>
The unit cannot be operated for about 3 minutes when restarted.	<ul> <li>This protects the unit according to instructions from the microprocessor. Please wait.</li> </ul>
Mist is discharged from the air outlet of the indoor unit.	<ul> <li>The cool air from the unit rapidly cools moisture in the air inside the room, and it turns into mist.</li> </ul>
The swing operation of the HORI- ZONTAL VANE is suspended for a while, then restarted.	This is for the swing operation of the HORIZON- TAL VANE to be performed normally.
When SWING is selected in COOL/DRY/FAN mode, the lower horizontal vane does not move.	<ul> <li>It is normal that the lower horizontal vane does not move when SWING is selected in COOL/ DRY/FAN mode.</li> </ul>
The airflow direction changes during operation. The direction of the horizontal vane cannot be adjusted with the remote controller.	<ul> <li>When the unit is operated in COOL or DRY mode, if the operation continues with air blowing down for 0.5 to 1 hour, the direction of the airflow is automatically set to upward position to prevent water from condensing and dripping.</li> <li>In the heating operation, if the airflow temperature is too low or when defrosting is being done, the horizontal vane is automatically set to horizontal position.</li> </ul>
The operation stops for about 10 minutes in the heating operation.	<ul> <li>Outdoor unit is in defrost.</li> <li>Since this is completed in max. 10 minutes, please wait. (When the outside temperature is too low and humidity is too high, frost is formed.)</li> </ul>
The unit starts operation by itself when the main power is turned on, but hasn't received sign from the remote controller.	<ul> <li>These models are equipped with an auto restart function. When the main power is turned off without stopping the unit with the remote controller and is turned on again, the unit starts operation automatically in the same mode as the one set with the remote control- ler just before the shutoff of the main power. Refer to "Auto restart function". Page 12</li> </ul>
The two horizontal vanes touch each other. The horizontal vanes are in an abnormal posi- tion. The horizontal vanes do not return to the correct "close position".	<ul> <li>Perform one of the following:</li> <li>Turn off and on the breaker. Make sure the horizontal vanes move to the correct "close position".</li> <li>Start and stop the emergency cooling operation and make sure the horizontal vanes move to the correct "close position".</li> </ul>
In COOL/DRY mode, when the room temperature reaches near the set temperature, the outdoor unit stops, then the indoor unit operates at low speed.	When the room temperature deviates from the set temperature, the indoor fan starts running according to the settings on the remote control- ler.
The indoor unit discolors over time.	<ul> <li>Although plastic turns yellow due to the influence of some factors such as ultraviolet light and temperature, this has no effect on the product functions.</li> </ul>
The operation indicator lamp is dim. The unit does not beep.	Is the NIGHT MODE operation set? Page 9
The operation does not stop, or air is blown even when the OFF/ ON button is pressed.	<ul> <li>Is the Operation indicator lamp lighted? When the Operation indicator lamp is lighted, SELF CLEAN operation is performed. Page 12</li> </ul>
Multi system	
The indoor unit which is not operating becomes warm and a sound, similar to water flowing, is heard from the unit.	<ul> <li>A small amount of refrigerant continues to flow into the indoor unit even though it is not operat- ing.</li> </ul>
When heating operation is selected, operation does not start right away.	<ul> <li>When operation is started during defrosting of outdoor unit is done, it takes a few minutes (max. 10 minutes) to blow out warm air.</li> </ul>
Outdoor Unit The fan of the outdoor unit does not rotate even though the com- pressor is running. Even if the fan starte to rotate it stons soon	When the outside temperature is low during cooling operation, the fan operates intermittently to maintain sufficient cooling capacity.
fan starts to rotate, it stops soon. Water leaks from the outdoor unit.	<ul> <li>During COOL and DRY operations, pipe or pipe connecting sections are cooled and this causes water to condense.</li> <li>In the heating operation, water condensed on the heat exchanger drips down.</li> <li>In the heating operation, the defrosting operation makes ice forming on the outdoor unit melt and drip down.</li> </ul>

Symptom	Explanation & Check points
Outdoor Unit White smoke is discharged from	In the heating operation, vapor generated by the
the outdoor unit.	defrosting operation looks like white smoke.
Remote controller	
The display on the remote controller does not appear or it	<ul> <li>Are the batteries exhausted? Page 5</li> <li>Is the polarity (+, -) of the batteries correct?</li> </ul>
is dim. The indoor unit does not	Page 5
respond to the remote control signal.	Are any buttons on the remote controller of other electric appliances being pressed?
Does not cool or heat	
The room cannot be cooled or	Is the temperature setting appropriate?
heated sufficiently.	Page 6 • Is the fan setting appropriate? Please change
	fan speed to High or Super High Page 7 • Are the filters clean? Page 13
	• Is the fan or heat exchanger of the indoor unit
	<ul><li>clean? Page 13</li><li>Are there any obstacles blocking the air inlet or</li></ul>
	outlet of the indoor or outdoor unit? • Is a window or door open?
	• It may take a certain time to reach the setting
	temperature or may not reach that depending on the size of the room, the ambient temperature,
	<ul> <li>and the like</li> <li>Is the NIGHT MODE operation set? Page 9</li> </ul>
The room cannot be cooled	• When a ventilation fan or a gas cooker is used
sufficiently.	in a room, the cooling load increases, resulting in an insufficient cooling effect.
	<ul> <li>When the outside temperature is high, the cool- ing effect may not be sufficient.</li> </ul>
The room cannot be heated	When the outside temperature is low, the heat-
sufficiently.	ing effect may not be sufficient.
Air does not blow out soon in the heating operation.	Please wait as the unit is preparing to blow out warm air.
Airflow	
The air from the indoor unit	• Are the filters clean? Page 13
smells strange.	Is the fan or heat exchanger of the indoor unit clean? Page 13
	<ul> <li>The unit may suck in an odor adhering to the wall, carpet, furniture, cloth, etc. and blow it out</li> </ul>
	with the air.
Sound	
Cracking sound is heard.	This sound is generated by the expansion/ contraction of the front panel, etc. due to change in temperature.
"Burbling" sound is heard.	<ul> <li>This sound is heard when the outside air is absorbed from the drain hose by turning on the</li> </ul>
	range hood or the ventilation fan, making water flowing in the drain hose to spout out.
	This sound is also heard when the outside air
	blows into the drain hose in case the outside wind is strong.
Mechanical sound is heard from	This is the switching sound in turning on/off the
the indoor unit. The sound of water flowing is	fan or the compressor.  • This is the sound of refrigerant or condensed
heard.	water flowing in the unit.
Hissing sound is sometimes heard.	• This is the sound when the flow of refrigerant inside the unit is changed.
Timer	
Weekly timer does not operate according to settings.	Is the ON/OFF timer set? Page 10     Transmit the setting information of the weekly.
according to bettings.	Transmit the setting information of the weekly timer to the indoor unit again. When the informa-
	tion is successfully received, a long beep will sound from the indoor unit. If information fails to
	be received, 3 short beeps will be heard. Ensure information is successfully received. Page 11
	• When a power failure occurs and the main
	power turns off, the indoor unit built-in clock will be incorrect. As a result, the weekly timer may
	not work normally. Be sure to place the remote controller where
	the signal can be received by the indoor unit.
The unit starts (starts the sec	Page 5
The unit starts/stops the opera- tion by itself.	Is the weekly timer set? Page 11
Wi-Fi <sup>®</sup> interface	
The Wi-Fi <sup>®</sup> interface cannot be paired with the router.	Setup is possible only after operating the air conditioner using the wireless remote controller.
	Perform pairing after the operation.

# When you think that trouble has occurred

#### In the following cases, stop using the air conditioner and consult your dealer.

- When water leaks or drips from the indoor unit.
- · When the operation indicator lamp blinks.
- When the breaker trips frequently.
- The remote control signal is not received in a room where an electronic ON/OFF type fluorescent lamp (inverter-type fluorescent lamp, etc.) is used.
  Operation of the air conditioner interferes with radio or TV reception. An amplifier may be required for the affected device.
- When an abnormal sound is heard.
- When any refrigerant leakage is found.

Operate by COOL mode with the highest temperature set or FAN mode for 3 to 4 hours. Page 6

- · This dries the inside of the unit.
- · Moisture in the air conditioner contributes to favorable conditions for growth of fungi, such as mold.

也OFF/ON

Press of to stop the operation.

Turn off the breaker and/or disconnect the power supply plug.

Remove all batteries from the remote controller.

### When using the air conditioner again:

1		
	Clean the air filter	D 40
_	Clean the air tilter	Pade 13

Check that the air inlet and outlet of the indoor and outdoor units are not blocked.

Check that the earth is connected correctly.

Refer to the "PREPARATION BEFORE OPERATION", and follow the instructions. Page 5

## INSTALLATION PLACE AND ELECTRICAL WORK

### **Installation place**

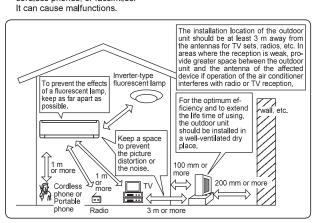
Avoid installing the air conditioner in the following places.

- Where there is much machine oil.
- Salty places such as the seaside.
- Where sulfide gas is generated such as hot spring, sewage, waste water. Where oil is splashed or where the area is filled with oily smoke (such as cooking areas and factories, in which the properties of plastic could be changed and damaged).
- Where there is high-frequency or wireless equipment. Where the air from the outdoor unit air outlet is blocked.
- Where the operation sound or air from the outdoor unit bothers the house next door.
- The mounting height of indoor unit 1.8 m to 2.3 m is recommended. If it is
- impossible, please consult your dealer. Do not operate the air conditioner during interior construction and finishing work, or while waxing the floor. Before operating the air conditioner, ventilate the room well after such work is performed. Otherwise, it may cause volatile elements to adhere inside the air conditioner, resulting in water leakage or scattering of dew.

#### For Wi-Fi® interface

- Do not use the Wi-Fi® interface nearby the medical electrical equipment or people who have a medical device such as a cardiac pacemaker or an implantable cardioverter-defibrillator.
- It can cause an accident due to malfunctions of the medical equipment or device.
- This equipment should be installed and operated with a minimum distance of 20 cm between the device and the user or bystanders.

Do not use the Wi-Fi® interface nearby other wireless devices, microwaves, cordless phones, or facsimiles.



#### **Electrical work**

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

If you have any questions, consult your dealer.

## **S**pecifications

Madal	Indoor Outdoor		MSZ-AY25VG(K)(P)		MSZ-AY35VG(K)(P)		MSZ-AY42VG(K)(P)		MSZ-AY50VG(K)(P)	
Model			MUZ-AY25VG		MUZ-AY35VG		MUZ-AY42VG		MUZ-AY50VG	
Function			Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Power supply				~ /N, 230 V, 50 Hz						
Capacity		kW	2.5	3.2	3.5	4.0	4.2	5.2	5.0	5.5
Input		kW 0.60 0.7		0.78	0.99	1.03	1.30	1.39	1.54	1.47
\A/aiabt	Indoor	kg		VGKP: 11, VGK: 10.5						
Weight	Outdoor	kg	27		28.5		34		40.5	
Refrigerant filling capacity (R32) kg		0.55 0.55 0.70			70 1.00					
Indoor			IP 20							
IP code	Outdoor		IP 24							
Permissible excessive	LP ps	MPa	2.77							
	HP ps	MPa	4.17							
Noise level (SPL)	Indoor (Super High/ High/Med./Low/Silent)	dB(A)	42/36/30/ 24/18	45/39/34/ 24/18	42/36/30/ 24/18	45/38/31/ 24/18	42/38/34/ 29/21	45/40/35/ 29/21	44/40/36/ 33/28	48/43/38/ 33/28
	Outdoor	dB(A)	47	48	49	50	50	51	52	52

### Indoor specification for multi connection REGULATION (EU) 2016/2281

Model	Indoor			MSZ-AY25VG(K)(P)	MSZ-AY35VG(K)(P)	MSZ-AY42VG(K)(P)	MSZ-AY50VG(K)(P)	
	Sensible		kW	2.30	3.08	3.23	3.70	
Capacity	Cooling	Latent	kW	0.20	0.42	0.97	1.30	
Heating		ating kW		2.90	4.00	4.80	5.70	
Input			kW	0.026	0.026	0.032	0.032	
Noise level (Sound power level)	Super High/High	/Med./Low/Silent	dB(A)	57/51/45/39/34	57/51/45/39/34	57/53/49/44/36	58/54/50/47/42	

#### Guaranteed operating range

		Indoor	Outdoor	
Cooling	Upper limit	32°C DB 23°C WB	46°C DB	
Cooling	Lower limit	21°C DB 15°C WB	-10°C DB —	
Heating	Upper limit	27°C DB —	24°C DB 18°C WB	
rieating	Lower limit	20°C DB —	-20°C DB -21°C WB	DB: Dry Bulb WB: Wet Bulb

### Wi-Fi<sup>®</sup> interface

Model	MAC-577IF2-E
Input Voltage	DC12.7 V (from indoor unit)
Power consumption	MAX. 2 W
Size H×W×D (mm)	73.5×41.5×18.5
Weight (g) (including cable)	46
Transmitter power level (MAX.)	20 dBm @IEEE 802.11b
RF channel	1ch ~ 13ch (2412~2472 MHz)
Radio protocol	IEEE 802.11b/g/n (20)
Encryption	AES
Authentication	WPA2-PSK
Software Version	XX.00

For Declaration of Conformity, please go to the website below. http://www.mitsubishielectric.com/ldg/ibim/

#### Note: -

Rating condition	
Cooling — Indoor:	27°C DB, 19°C WB
Outdoor:	35°C DB
Heating — Indoor:	20°C DB
Outdoor:	7°C DB, 6°C WB