USER'S MANUAL

MULTI SYSTEM-wall mounted

MS-H07AIC PT, MS-H09AIC PT MS-H12AIC PT, MS-H18AIC PT



"Original instructions"

Thank you for choosing Residential Air Conditioners, please read this owner's manual carefully before operation and retain it for future reference.

MS-H07AIC PT MS-H09AIC PT MS-H12AIC PT MS-H18AIC PT

CONTENTS

Operation and maintenance

	Notices for operation	1
	Notices for use	3
	Names and functions of each part	5
	Operation of Remote Controller	6
	Emergency operation	12
	Clean and care	13
	Troubleshooting	15
In	stallation service	
	Notices for installation	18
	Installation dimension diagram	20
	Install indoor unit	21
	Check after installation and test operation	24
	Installation and Maintenance of Healthy Filter	25
	Configuration of connection pipe and additional volume of refrigerant	26



Never attempt.



Be sure to follow this instruction

The physical product may differ from the drawing in this manual for different display. If there are some differences between them, please refer to the physical product as the standard.

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 they are away from the appliance.



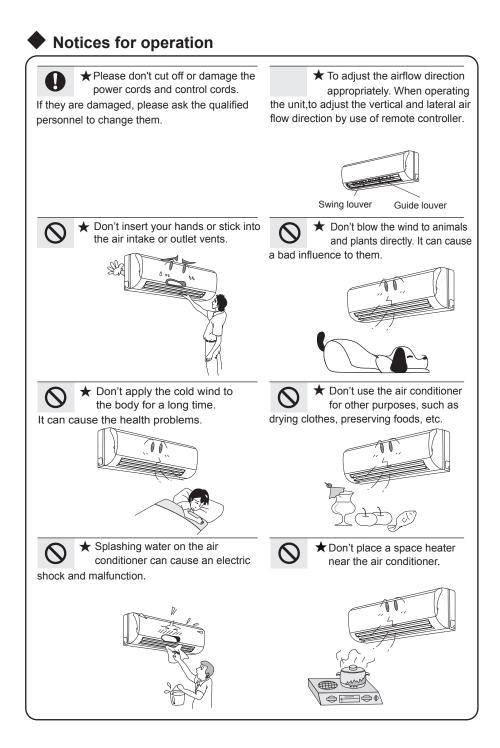
This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.



Notices for operation

Please read the following carefully before operating





Notices for use

Working principle and special functions for cooling

Principle:

Air conditioner absorbs heat in the room and transmit to outdoor and discharged, so that indoor ambient temperature decreased, its cooling capacity will increase or decrease by outdoor ambient temperature.

Anti-freezing function:

If the unit is running in COOL mode and in low temperature, there will be frost formed on the heat exchanger, when indoor heat exchanger temperature decreased below 0° C, the indoor unit microcomputer will stop compressor running and protect the unit.

Working principle and special functions for heating

Principle:

- * Air conditioner absorbs heat from outdoor and transmits to indoor, in this way to increase room temperature. This is the heat pump heating principle, its heating capacity will be reduced due to outdoor temperature decrease.
- * If outdoor temperature becomes very low, please operate with other heating equipments.

Defrosting:

- * When outdoor temperature is low but high humidity, after a long while running, frost will form on outdoor unit, that will effect the heating effect, at this time, the auto defrosting function will act, the heat running will stop for 8-12mins.
- * During the auto defrosting, the fan motors of indoor unit and outdoor unit will stop.
- * During the defrosting, the indoor indicator flashes, the outdoor unit may emit vapor. This is due to the defrosting, it isn't malfunction.
- * After defrosting finished, the heating will recover automatically.

Anti-cool wind function:

In "Heat" mode, under the following three kinds of state, if indoor heat exchanger doesn't arrive at certain temp., indoor fan will not act, in order to prevent cool wind blowing(within 2 mins):

1. Heating starts. 2. After Auto Defrost finished. 3. Heating under the low temperature.

Rest Heat Blow

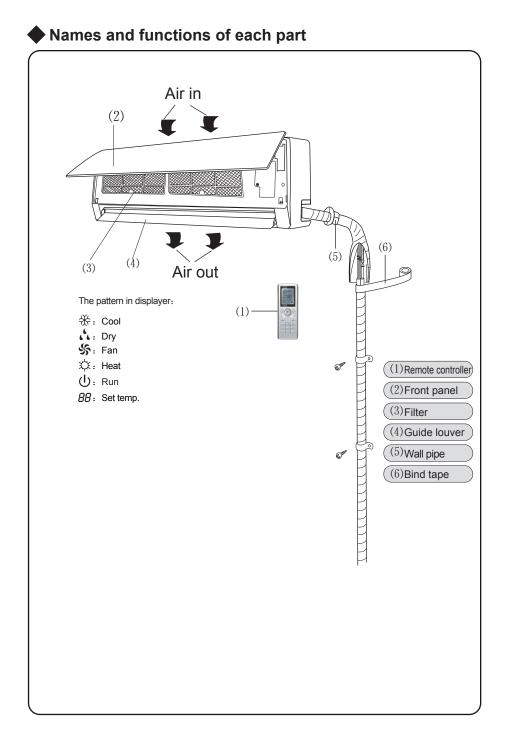
In the following situations, the indoor unit may still run for some time, to blow out the rest heat of the indoor unit and the horizontal louver rotates to a certain position.

- 1. In HEAT mode, the temperature reaches the setting value, the compressor stops and the indoor fan still run for 60s.
- 2. In HEAT mode, if you turn off the unit, the compressor stops and the indoor fan still run for 10s.

• Notices for use

※ Working temperature range			
	Indoor sideDB/WB(°C)	Outdoor sideDB/WB(°C)	
Maximum cooling	32/23	43/26	
Maximum heating	27/	24/18	

The operating temperature range (outdoor temperature) for cooling only unit is 18 C ~ 43 C ; for heat pump unit is -7 C ~ 43 C.





1 ON/OFF

Press it to start or stop operation.

- 2 : Press it to decrease temperature setting.
- + : Press it to increase temperature setting.
- FAN Press it to set fan speed.
- 5 MODE Press it to select operation mode (AUTO/COOL/DRY/FAN/HEAT).
- 6 | FEEL(Page 9)

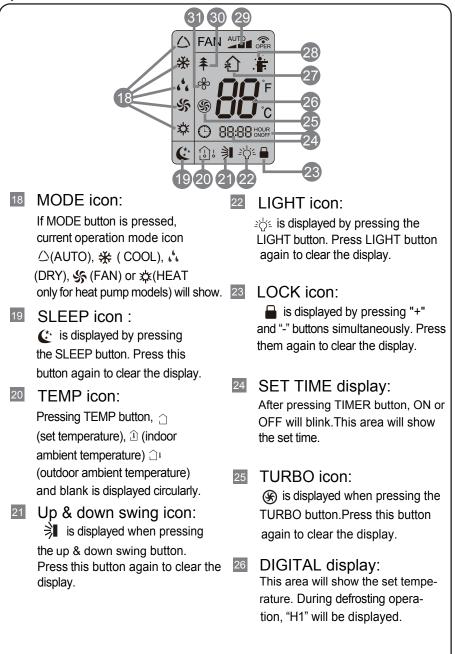
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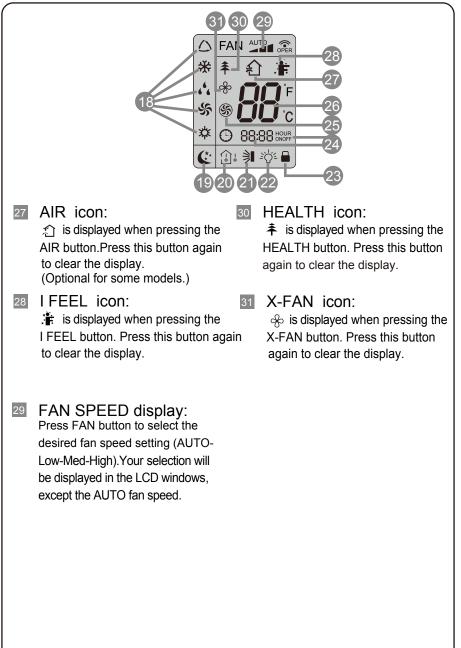
Press it to set HEALTH function

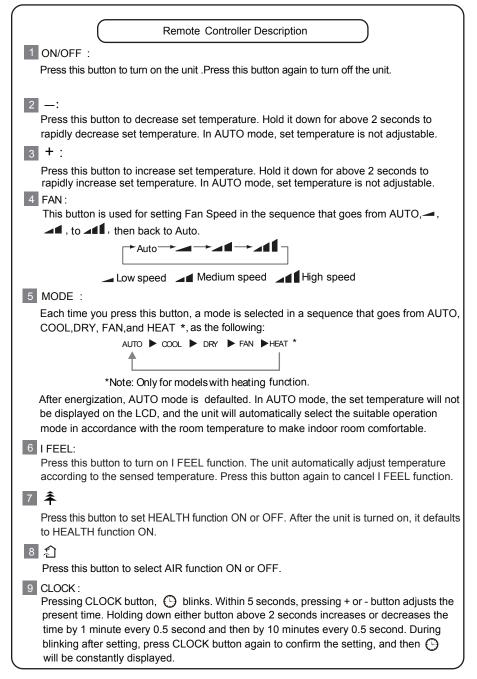
- 8 纪 Press it to set AIR function.
- 9 CLOCK Press it set clock.
- 10 TIMER ON Press it to set auto-on timer.
- 11 考 Press it set swing angle.
- 12 X-FAN (page 10)
- 13 TEMP(page 10)
- 14 TIMER OFF Press it to set auto-off timer
- 15 TURBO(page 10)
- 16 SLEEP(page 11)

17 LIGHT

Press it to turn on/off the light.







10 TIMER ON :

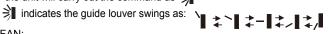
Press this button to initiate the auto-ON timer. To cancel the auto-timer program, simply press this button again.

After pressing this button, 🕒 disappears and "ON "blinks. 00:00 is displayed for ON time setting. Within 5 seconds, press + or - button to adjust the time value. Every press of either button changes the time setting by 1 minute. Holding down either button rapidly changes the time setting by 1 minute and then 10 minutes. Within 5 seconds after setting, press TIMER ON button to confirm.

11 🗎

Press this button to set up & down swing angle, which circularly changes as below:

This remote controller is universal. If any command \ge , \ge or = is sent out, the unit will carry out the command as



12 X-FAN:

Pressing X-FAN button in COOL or DRY mode, the icon % is displayed and the indoor

fan will continue operation for 2 minutes in order to dry the indoor unit even though you have turned off the unit.

After energization, X-FAN OFF is defaulted. X-FAN is not available in AUTO, FAN or HEAT mode.

NOTE: X-FAN is the alternative expression of BLOW for the purpose of understanding.

13 TEMP:

Press this button, you can see indoor set temperature, indoor ambient temperature on indoor unit's display. The setting on remote controller is selected circularly as below:

When selecting " 1 with remote controller or no display, temperature indicator on indoor unit displays set temperature; When selecting " (a) " with remote controller, temperature indicator on indoor unit displays indoor ambient temperature; 3s later or within 3s it receives other remote control signal that will return to display the setting temperature. Caution:

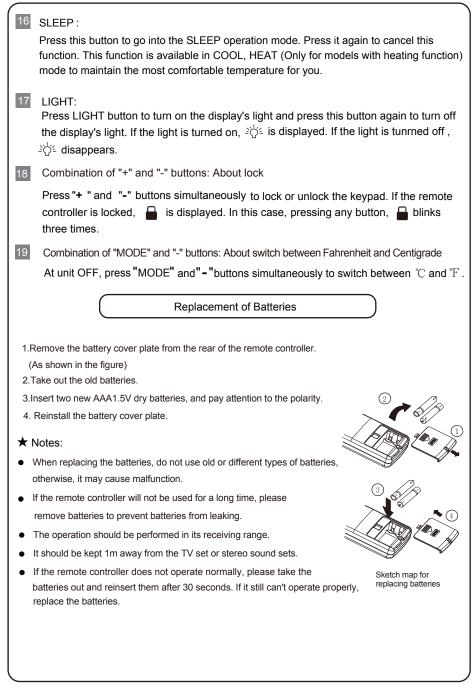
- This model hasn't outdoor ambient temperature display function. While remote controller can operate " () and indoor unit displays set temperature.
- It's defaulted to display set temperature when turning on the unit.
- Only for the models with temperature indicator on indoor unit.

14 TIMER OFF :

Press this button to initiate the auto-off timer. To cancel the auto-timer program, simply press the button again.TIMER OFF setting is the same as TIMER ON.

15 TURBO:

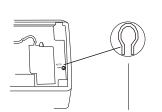
Press this button to activate / deactivate the Turbo function which enables the unit to reach the preset temperature in the shortest time. In COOL mode, the unit will blow strong cooling air at super high fan speed. In HEAT mode, the unit will blow strong heating air at super high fan speed. (This function is not applicable for some models).



Emergency Operation

Emergency Operation

When the remote controller is lost or damaged, please use the manual switch on the main unit. In that case, the unit will operate in AUTO mode and the temperature setting or fan speed can not be changed.



The manual switch can be operated as below:

• Turn on the unit: Press AUTO/STOP button to enter AUTO mode.

The microcomputer will select the mode (COOL, HEAT, FAN) automatically according to the room temperature for reaching comfortable effect.

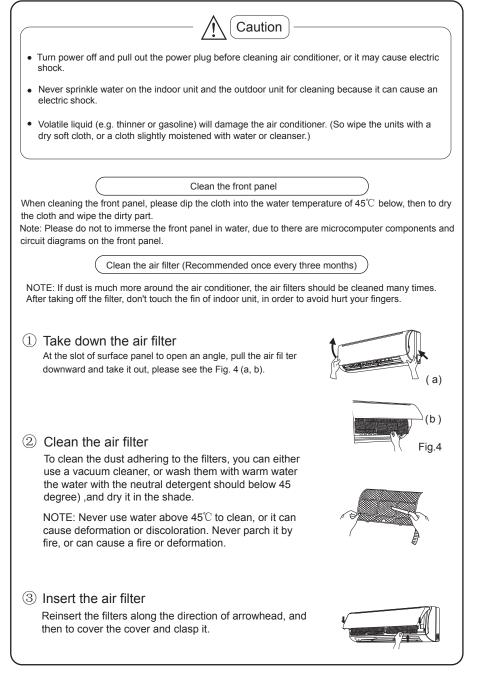
- Turn off the unit: Press the AUTO/STOP button to switch off the unit.
- The operation mode is seen in the following table.

Mode	Model	Temperature setting	Airflow rate
AUTO	COOLING	25℃ (COOL,FAN)	AUTO
AUTO	HEAT PUMP	25℃ (COOL,FAN)	AUTO
AUTO	HEAT PUMP	20℃ (HEAT)	AUTO

• This switch is to be applied when the remote controller is missing.



Clean and care



Clean and care	
Check before use	\supset
$(\underline{1})$ Be sure that nothing obstructs the air outlet and intake vents.	
2 Check that whether ground wire is properly connected or not.	
③ Check that whether the batteries of air conditioner are changed or not.	
Maintain after use	
1) Turn main power off.	
 Turn main power on. Clean the filter and indoor and outdoor units' bodies. 	
 Clear dust and obstructions from the outdoor units. 	

Troubleshooting

Don't attempt to repair the air conditioner by yourself, it can cause an electric shock or fire. Please check the following items before asking for repair, it can save your time and money.				
Phenomenon	Troubleshooting			
Not operate immediately when the air conditioner is restarted.	 Once the air conditioner is stopped, it will not operate in approximately 3 minutes to protect itself. 			
There's unusual smell blowing from the outlet after operation is started.	 The unit has no peculiar smell by itself. If has, that is due to the smell accumulated in the ambient. Solution method: Cleaning the filter. If problem still has, so need to clean air conditioner. (Please contact with the authorized maintenance center.) 			
Sound of water flow can be heard during the operation.	• The air conditioner is started, when it is running the compressor started or stopped running, or the unit is stopped, sometimes there is swoosh or gurgle, the sound is due to refrigerant flowing they are not malfuncti- ons.			
In COOL mode, sometimes the mist emitted from the air outlet vent.	• When the indoor temperature and humidity are very high, this phenomenon would happen. This is caused by the room air is swiftly cooled down. After running for a while, indoor temperature and humidity will fall down, the mist will die away.			
Creaking noise can be heard when start or stop the unit.	This is caused by the deformation of plastic due to the changes of temperature.			

Troubleshooting Phenomenon Troubleshooting · Has the power been shut down? The unit can not run. Is power plug loosed? Is the circuit protection device tripped off or not? • Is voltage higher or lower? 86,8 (Tested by professionals) Breaking off) · Is the TIMER correctly used? · Is Temp. setting suitable? Cooling(Heating) efficiency is not good. Were inlet and outlet vents obstructed? Is filter dirty? · Are the windows and doors clothed? • Did Fan speed set at low speed? · Is there any heat sources in the room? Wireless remote control is not available. The unit is interfered by abnormal or frequent functions switchover occasionally the controller cannot operate. At this time, you need to pull out of the plug, and reinsert it. · Is it in its receiving range? Or obstructed? To check the voltage in wireless remote control inside is charged, otherwise to replace the batteries. · Whether the wireless remote control is damaged. • The air humidity is on the high side. If water leakage in the room. · Condensing water over flowed. • The connection position of indoor unit drainage pipe is loosed. The sound of fan or compressor relay is switching Noise from indoor unit emitted. on or off. • When the defrosting is started or stop running, it will sound. That is due to the refrigerant flowed to the reverse direction. Moisture on air outlet vent. · If unit is running under the high humidity for a long time, the moisture will be condensed on the air outlet grill and drip off.

Troubleshooting

Phenomenon	Troubleshooting
Indoor unit cannot deliver air.	 In HEAT mode, when the temperature of indoor heat exchanger is very low, that will stop deliver air in order to prevent cool air. (Within 2min) In HEAT mode, when the outdoor temperature is low or high humidity, there are much frost be formed on the outdoor heat exchanger, that the unit will automatically defrost, indoor unit stop blowing air for 3-12min. During the defrosting, there is water flowing out or vapor be produced. In dry mode, sometimes indoor fan will stop, in order to avoid condensing water be vaporized again, restrain temperature rising.
E5: overcurrent protection	Power indicator blinks and E5 is displayed
C5:Connector jumper malfunction	• Check if the connector jumper contacts the properly.If replace the PCB, please take off the old for the new PCB.
F1:Indoor ambient temp. sensor malfunction	Check if indoor room temp.sensor is connected properly?
F2:Evaporator temp.sensor malfunction	 Check if indoor tube temp.sensor is connected properly?
H6:PC motor (indoor fan) can't run	 Feedback terminal of PG motor hasn't been connected firmly. The control end of PG motor hasn't been connected firmly. Fan blade hasn't been installed correctly and it can't run smoothly. Motor hasn't been installed correctly and tightly. Motor has been damaged. Control panel has been damaged.
U8:Malfunction of zero cross detection circuit for PG motor (indoor fan)	Control panel has been damaged.
Defrosting or oil return mode	 It is normal. The indicating lamp in heat mode will wink 0.5s and light 10s.



Immediately stop all operations and plug out, contact the dealer in following situations.

There is harsh sound during operation. The terrible odors emitted during operation. Water is leaking in the room.

Air switch or protection switch often breaks.

Carelessy splash water or something into unit. There is an abnormal heat in power supply cord. Stop running and cut off the power supply.

Notices for installation

Important Notices

- 1. The unit installation work must be done by qualified personnel according to the local rules and this manual.
- Before installation, please contact with local authorized maintenance center, if unit is not installed by the authorized maintenance center, the malfunction may not solved, due to discommodious contacts.
- 3. When removing the unit to the other place, please firstly contact with the authorized Maintenance Center in the local area.
- 4. The appliance must be positioned so that the plug is accessible.
- After pull out the power plug then make the appliance operation again, to avoid the icing of outdoor unit damage axial flow fan, should electrify the appliance but not operation for 4 hours for warm-up purpose.

Basic Requirements For Installation Position

Install in the following place may cause malfunction. If it is unavoidable contact with service center please:

- Place where strong heat sources, vapors, flammable gas or volatile object are emitted.
- Place where high-frequency waves are generated by radio equipment, welders and medical equipment.
- Place where a lot of salinities such as coast exists.
- Place where the oil (machine oil) is contained in the air.
- Place where a sulfured gas such as the hot spring zones is generated.
- Other place with special circumstance.

Indoor Unit Installation Position Selection

- 1. The air inlet and outlet vent should be far from the obstruction, make sure that the air can be blown through the whole room.
- 2. Select a position where the condensing water can be easily drained out, and the place is easily connected for outdoor unit.
- 3. Select a location where the children can not reach.
- 4. Can select the place where is strong enough to withstand the full weight and vibration of the unit. And will not increase the noise.
- 5. Be sure to leave enough space to allow access for routine maintenance. The height of the installed location should be 250cm or more from the floor.
- 6. Select a place about 1m or more away from TVset or any other electric appliances.
- 7. Select a place where the filter can be easily taken out.
- 8. Make sure that the indoor unit installation should accord with installation dimension diagram requirements.
- 9. Do not use the unit in the immediate surroundings of a laundry a bath a shower or a swimming pool.

Notices for installation

Safety Requirements For Electric Appliances

- 1. The power supply should be used the rated voltage and AC exclusive circuit, the power cable diameter should be satisfied.
- 2. Don't drag the power cable emphatically.
- 3. It should be reliably earthed, and it should be connected to the special earth device, the installation work should be operated by the professional.

The air switch must have the functions of magnetic tripping and heat tripping, in order to protect the short circuit and overloading.

- 4. The min. distance from the unit and combustive surface is 1.5m.
- 5. The appliance shall be installed in accordance with national wiring regulations.
- 6. An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring. For models with a power plug, make sure the plug is within reach after installation.

Note:

- Make sure that the Live wire or Zero line as well as the earth wire in the family power socket can not be wrong connected, there should be reliable and no short circuit in the diagram.
- wrong connection may cause fire.

Earthing requirements

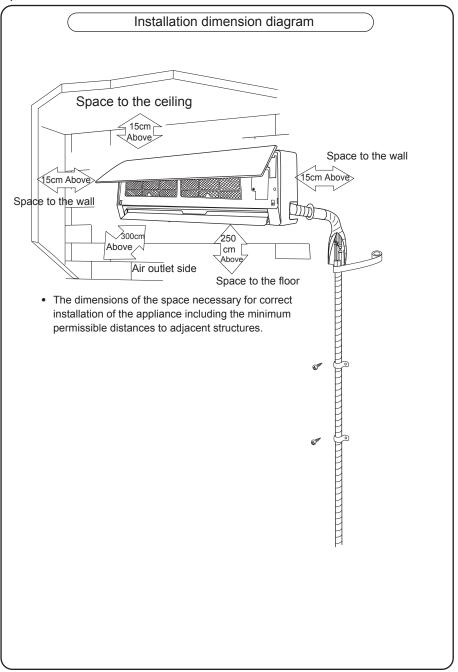
- 1. Air conditioner is type I electric appliance, thus please do conduct reliable earthing measure.
- The yellow-green two-color wire in air conditioner is earthing wire and cannot be used for other propose. It cannot be cut off and be fix it by screw, otherwise it would cause electric shock.
- 3. The earth resistance should accord to the National Criterion.
- 4. The user power must offer the reliable earthing terminal. Please don't connect the earthing wire with the following place:

1) Tap water pipe. 2) Gas pipe. 3) Contamination pipe.

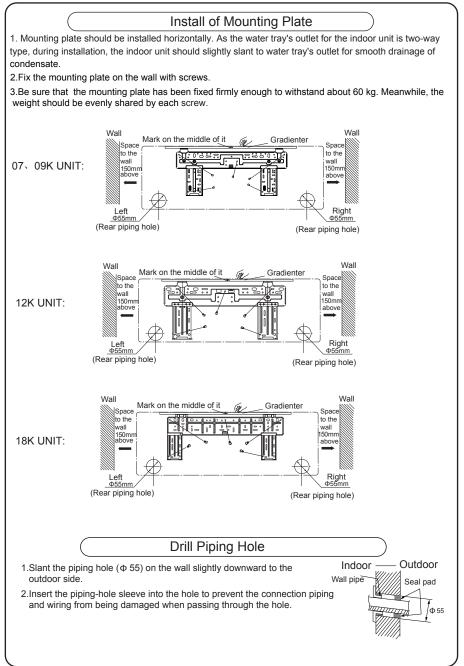
4 Other places that professional personnel consider them unreliable.

5. The model and rating values for fuses according the silk print on fuse cover or related PCB board.

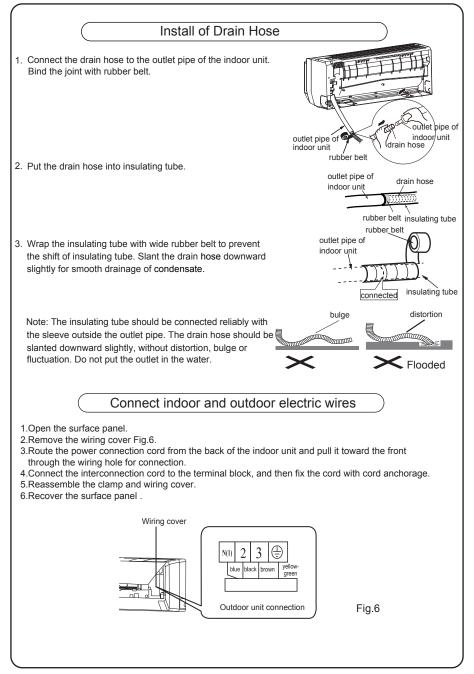
Installation dimension diagram



Install indoor unit



Install indoor unit

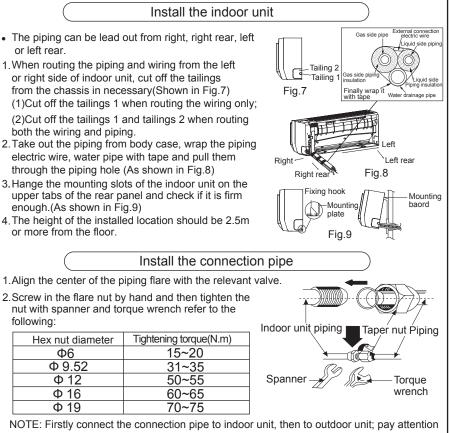


Install indoor unit

NOTE:

When connecting the electric wire if the wire length is not enough, please contact with the authorized service shop to buy a exclusive electric wire that is long enough and the joint on the wire are not allowed.

- The electric wiring must be correctly connected, wrong connection may cause spare parts malfunction.
- Tighten the terminal screw in order to prevent loose.
- After tighten the screw, slight pull the wire and confirm whether is it firm or not.
- If the earth wire is wrong connection, that may cause electric shock.
- The cover plate must be fixed, and tighten the connection wire, if it is poor installed, that the dust, moisture may enter in or the connection terminal will be affected by outside force, and will cause fire or electric shock.



to the piping bending, do not damage the connection pipe; the joint nut couldn't tighten too much, otherwise it may cause leakage.

Check after installation and test operation

Check after installation

Items to be checked	Possible malfunction		
Has it been fixed firmly?	The unit may drop, shake or emit noise.		
Have you done the refrigerant leakage test?	It may cause insufficient cooling(heating) capacity		
Is heat insulation sufficient?	It may cause condensation and dripping.		
Is water drainage well?	It may cause condensation and dripping.		
Is the voltage in accordance with the rated voltage marked on the nameplate?	It may cause electric malfunction or damage the part.		
Is the electric wiring and piping connection installed correctly and securely?	It may cause electric malfunction or damage the part.		
Has the unit been connected to a secure earth connection?	It may cause electrical leakage.		
Is the power cord specified?	It may cause electric malfunction or damage the part.		
Is the inlet and outlet been covered?	It may cause insufficient cooling(heating) capacity.		
Has the length of connection pipes and refrigerant capacity been recorded?	The refrigerant capacity is not accurate.		

Test Operation

- 1. Before test operation
 - (1) Do not switch on power before installation is finished completely.
 - (2) Electric wiring must be connected correctly and securely.
 - (3) Cut-off valves of the connection pipes should be opened.
 - (4) All the impurities such as scraps and thrums must be cleared from the unit.

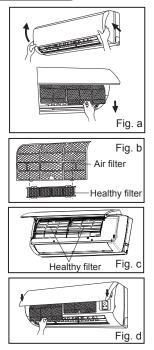
2. Test operation method

- (1) Switch on power, press "ON/OFF" button on the wireless remote control to start the operation.
- (2) Press MODE button, to select the COOL, HEAT (Cooling only unit is not available), FAN to check whether the operation is normal or not.

Installation and Maintenance of Healthy Filter

Installation Instructions

- 1. Forcibly pull the panel for a specific angle from the two ends of the front panel according to the arrow direction. Then pull the air filter downwards to remove it. (See Fig.a)
- Mount the healthy filter onto the air filter, (as shown in Fig.b). If the air filter cannot be installed, please mount the healthy filter on the front case. (as shown in Fig.c)
- 3. Mount the air filter properly along the arrow direction in Fig.d, and then close the panel cover.



Cleaning and Maintenance

Take out the healthy filter before cleaning and reinstall it after cleaning according to the installation instruction. Pay special attention to that silver ion filter can't be cleaned with water, while active carbon, photocatalyst, low temperature conversion (LTC) catalyst, formaldehyde eliminator, catechin or mite killing filter can, but can't with brush or hard things. Dry it in the shade or sun after cleaning, but not by wiping.

Service Life

The healthy filter commonly has its usage lifetime for one year under normal condition. As for silver ion filter, it is invalid when its surface becomes black (green).

• This supplementary instruction is provided for reference to the unit with healthy filter. If the graphics provided herein is different from the physical goods, the latter one shall prevail. The quantity of healthy filters shall be based on the actual delivery.

Configuration of connection pipe and additional volume of refrigerant

- Standard length of connection pipe 5m、7.5m、8m
- Min length of connection pipe
 For the unit with standard connection pipe of 5m, there is no limitation for the min length of connection pipe. For the unit with standard connection pipe of 7.5m and 8m, the min length of connection pipe is 3m.
- 3. Max length of connection pipe

Sheet 1 Max length of connection pipe Unit: m

Capacity	Max length of connection pipe		Capacity	Max length of connection pipe
5000 Btu/h (1465 W)	15		24000 Btu/h (7032 W)	25
7000 Btu/h (2051 W)	15		28000 Btu/h (8204 W)	30
9000 Btu/h (2637 W)	15		36000 Btu/h (10548 W)	30
12000 Btu/h (3516 W)	20		42000 Btu/h (12306 W)	30
18000 Btu/h (5274 W)	25		48000 Btu/h (14064 W)	30

4. The calculation method of additional refrigerant oil and refrigerant charging amount after prolonging connection pipe

After the length of connection pipe is prolonged for 10m at the basis of standard length, you should add 5ml of refrigerant oil for each additional 5m of connection pipe.

The calculation method of additional refrigerant charging amount (on the basis of liquid pipe):

- (1) Additional refrigerant charging amount= prolonged length of liquid pipe × additional refrigerant charging amount per meter
- (2) When the length of connection pipe is above 5m, add refrigerant according to the prolonged length of liquid pipe. The additional refrigerant charging amount per meter is different according to the diameter of liquid pipe. See Sheet 2.

Configuration of connection pipe and additional volume of refrigerant

Diameter of connection pipe mm		Indoor unit throttle	Outdoor unit throttle	
Liquid pipe	Gas pipe	Cooling only,	Cooling only	Cooling and
		cooling and heating	(g / m)	heating (g /
		(g / m)		m)
Φ6	Ф9.5 or Ф12	20	15	20
Φ6 or Φ9.5	Ф16 or Ф19	50	15	50
Φ12	Φ19 or Φ22.2	100	30	120
Φ16	Ф25.4 or Ф31.8	170	60	120
Ф19	-	250	250	250
Φ22.2	-	350	350	350

Sheet 2. Additional refrigerant charging amount for R410A

Note: The additional refrigerant charging amount in Sheet 2 is recommended value, not compulsory.

Take-back of electrical waste Information for Users to Disposal of electrical and electronic equipment (private households)

Icon on the product or in the accompanying documentation means that used electric or electronic products must not be disposed together with domestic waste. For the correct disposal of the product hand it over to a place for take-back, where it is collected free of charge. By correct disposal of the product you can help to preserve valuable natural resources and help in preventing potential negative impacts to environment and human health, which could be consequence of incorrect disposal of waste. Ask for more details from local authorities, nearest collection point, in Waste Acts of respective country, in the Czech Republic in Act no. 185/2001 Coll., in the wording of later regulations. In case of incorrect disposal of this waste, a fine can be imposed according to national regulations.



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