



Split Air Conditioner



Models:

ISMI-W092

ISMI-W122

Thank you for choosing our product.

For proper operation, please read and keep this manual carefully.

If you have lost the Owner's Manual, please contact the local agent or visit [www.impecca.com](http://www.impecca.com) for an electronic version.

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This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

R410A(R32/125: 50/50): 1975

## Explanation of Symbols

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Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.



Indicates important but not hazard-related information, used to indicate risk of property damage.



Indicates a hazard that would be assigned a signal word WARNING or CAUTION.

## Precautions



### WARNING

#### **Operation and Maintenance**

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.
- Do not connect air conditioner to multi-purpose socket. Otherwise, it may cause fire hazard.
- Do disconnect power supply when cleaning air conditioner. Otherwise, it may cause electric shock.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Do not wash the air conditioner with water to avoid electric shock.
- Do not spray water on indoor unit. It may cause electric shock or malfunction.
- After removing the filter, do not touch fins to avoid injury.
- Do not use fire or hair dryer to dry the filter to avoid deformation or fire hazard.

## Precautions



### WARNING

- Maintenance must be performed by qualified professionals. Otherwise, it may cause personal injury or damage.
- Do not repair air conditioner by yourself. It may cause electric shock or damage. Please contact dealer when you need to repair air conditioner.
- Do not extend fingers or objects into air inlet or air outlet. It may cause personal injury or damage.
- Do not block air outlet or air inlet. It may cause malfunction.
- Do not spill water on the remote controller, otherwise the remote controller may be broken.
- When below phenomenon occurs, please turn off air conditioner and disconnect power immediately, and then contact the dealer or qualified professionals for service.
  - Power cord is overheating or damaged.
  - There's abnormal sound during operation.
  - Circuit break trips off frequently.
  - Air conditioner gives off burning smell.
  - Indoor unit is leaking.
- If the air conditioner operates under abnormal conditions, it may cause malfunction, electric shock or fire hazard.
- When turning on or turning off the unit by emergency operation switch, please press this switch with an insulating object other than metal.
- Do not step on top panel of outdoor unit, or put heavy objects. It may cause damage or personal injury.

## Precautions



### WARNING

#### Attachment

- Installation must be performed by qualified professionals. Otherwise, it may cause personal injury or damage.
- Must follow the electric safety regulations when installing the unit.
- According to the local safety regulations, use qualified power supply circuit and circuit break.
- Do install the circuit break. If not, it may cause malfunction.
- An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- Including an circuit break with suitable capacity, please note the following table. Air switch should be included magnet buckle and heating buckle function, it can protect the circuit-short and overload.
- Air Conditioner should be properly grounded. Incorrect grounding may cause electric shock.
- Don't use unqualified power cord.
- Make sure the power supply matches with the requirement of air conditioner. Unstable power supply or incorrect wiring or malfunction. Please install proper power supply cables before using the air conditioner.
- Properly connect the live wire, neutral wire and grounding wire of power socket.
- Be sure to cut off the power supply before proceeding any work related to electricity and safety.

## Precautions



### WARNING

- Do not put through the power before finishing installation.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.
- The appliance shall be installed in accordance with national wiring regulations.
- Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.
- The air conditioner is the first class electric appliance. It must be properly grounding with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
- The yellow-green wire in air conditioner is grounding wire, which can't be used for other purposes.
- The grounding resistance should comply with national electric safety regulations.
- The appliance must be positioned so that the plug is accessible.
- All wires of indoor unit and outdoor unit should be connected by a professional.
- If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.

## Precautions



### WARNING

- For the air conditioner with plug, the plug should be reachable after finishing installation.
- For the air conditioner without plug, an circuit break must be installed in the line.
- If you need to relocate the air conditioner to another place, only the qualified person can perform the work. Otherwise, it may cause personal injury or damage.
- Select a location which is out of reach for children and far away from animals or plants. If it is unavoidable, please add the fence for safety purpose.
- The indoor unit should be installed close to the wall.

### Working temperature range

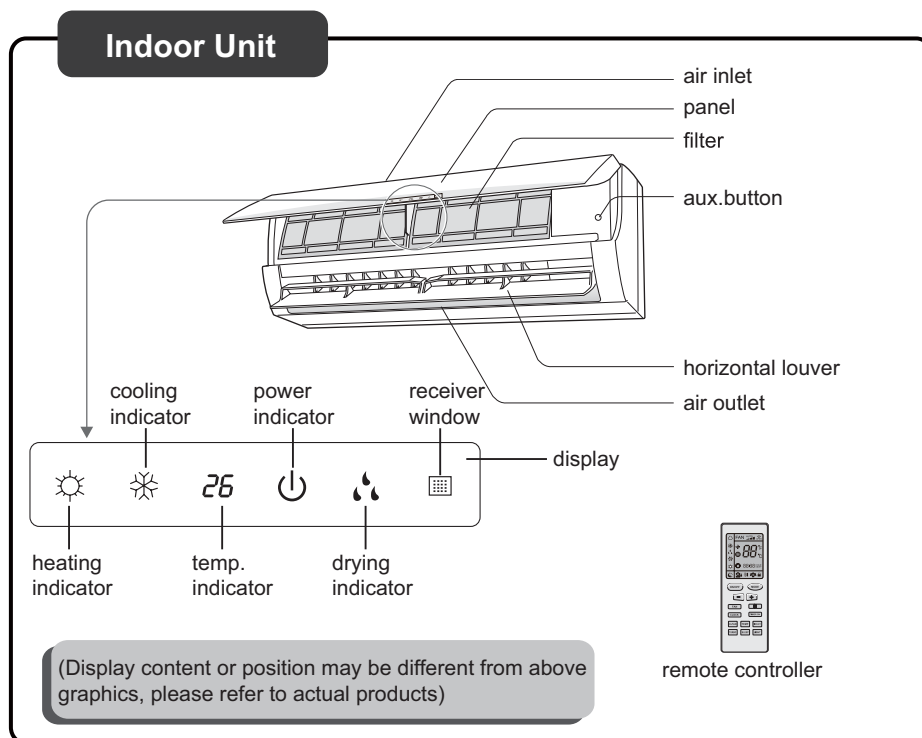
	Indoor side DB/WB(°C )	Outdoor side DB/WB(°C )
Maximum cooling	26.7/19.4	46.1/23.9
Maximum heating	26.7/-	23.9/18.3

### NOTICE:

- The temperature range for operating the unit with electric heating: -20℃~46.1℃ ;  
the temperature range for operating the unit without electric heating: -18℃~46.1℃



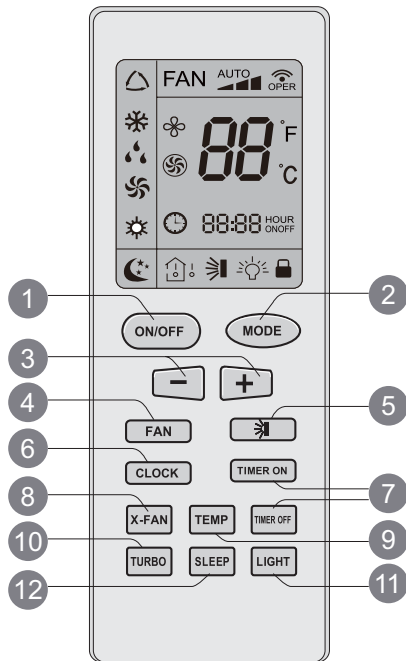
## Parts Name



### **NOTICE:**

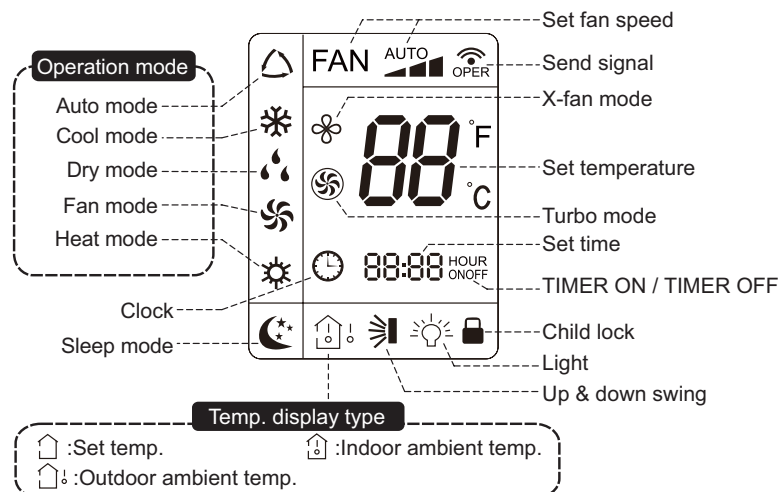
Actual product may be different from above graphics, please refer to actual products.

## Buttons on remote controller



- 1 ON/OFF button
- 2 MODE button
- 3 +/- button
- 4 FAN button
- 5 X-FAN button
- 6 CLOCK button
- 7 TIMER ON/TIMER OFF button
- 8 X-FAN button  
Note: X-FAN is the same with BLOW
- 9 TEMP button
- 10 TURBO button
- 11 LIGHT button
- 12 SLEEP button

## Introduction for icons on display screen



## Introduction for buttons on remote controller

### Note:

- After putting through the power, the air conditioner will give out a sound. Operation indicator "⏻" is ON (red indicator). After that, you can operate the air conditioner by using remote controller.

### 1 ON/OFF button

Press this button can turn on or turn off the air conditioner. After turning on the air conditioner, operation indicator "⏻" on indoor unit's display is ON (green indicator. The colour is different for different models), and indoor unit will give out a sound.

### 2 MODE button

Press this button to select your required operation mode.



- When selecting auto mode, air conditioner will start auto operation according to indoor ambient temperature. Set temperature can't be adjusted and will not be displayed as well. Press "FAN" button can adjust fan speed. Press "↗" button can adjust fan blowing angle.
- After selecting cool mode, air conditioner will operate under cool mode. Cool indicator "❄" on indoor unit is ON. Press "+" or "-" button to adjust set temperature. Press "FAN" button to adjust fan speed. Press "↗" button to adjust fan blowing angle.
- When selecting dry mode, the air conditioner operates at low speed under dry mode. Dry indicator "💧" on indoor unit is ON. Under dry mode, fan speed can't be adjusted. Press "↗" button to adjust fan blowing angle.
- When selecting fan mode, the air conditioner will only blow fan, no cooling and no heating. All indicators are OFF. Press "FAN" button to adjust fan speed. Press "↗" button to adjust fan blowing angle.
- When selecting heating mode, the air conditioner operates under heat mode. Heat indicator "☀" on indoor unit is ON. Press "+" or "-" button to adjust set temperature. Press "FAN" button to adjust fan speed. Press "↗" button to adjust fan blowing angle. (Cooling only unit won't receive heating mode signal. If setting heat mode with remote controller, press ON/OFF button can't start up the unit).

### Note:

- For preventing cold air, after starting up heating mode, indoor unit will delay 1~5 minutes to blow air (actual delay time is depend on indoor ambient temperature).
- Set temperature range from remote controller: 16~30℃ ; Fan speed: auto, low speed, medium speed, high speed.

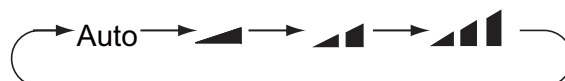
## Introduction for buttons on remote controller

### 3 +/- button

- Press "+" or "-" button once increase or decrease set temperature 1°C . Holding "+" or "-" button, 2s later, set temperature on remote controller will change quickly. On releasing button after setting is finished, temperature indicator on indoor unit will change accordingly. (Temperature can't be adjusted under auto mode)
- When setting TIMER ON, TIMER OFF or CLOCK, press "+" or "-" button to adjust time. (Refer to CLOCK, TIMER ON, TIMER OFF buttons) When setting TIMER ON, TIMER OFF or CLOCK, press "+" or "-" button to adjust time. (Refer to CLOCK, TIMER ON, TIMER OFF buttons)

### 4 FAN button

Pressing this button can set fan speed circularly as: auto (AUTO), low(▲), medium (▲▲), high(▲▲▲).

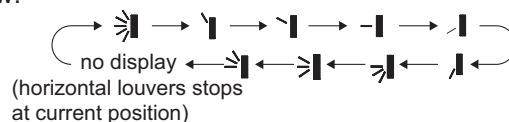


#### Note:

- Under AUTO speed, the IDU fan motor will adjust the fan speed (high, medium or low speed) according to ambient temperature.
- Fan speed under dry mode is low speed.

### 5 Fan swing button

Press this button can select up&down swing angle. Fan blow angle can be selected circularly as below:



- When selecting "no display", air conditioner is blowing fan automatically. Horizontal louver will automatically swing up & down at maximum angle.
- When selecting "▲", "▲▲", "▲▲▲", "▲▲▲▲", "▲▲▲▲▲", air conditioner is blowing fan at fixed position. Horizontal louver will stop at the fixed position.
- When selecting "▲", "▲▲", "▲▲▲", air conditioner is blowing fan at fixed angle. Horizontal louver will send air at the fixed angle.
- Hold "no display" button above 2s to set your required swing angle. When reaching your required angle, release the button.

#### Note:

- "▲", "▲▲", "▲▲▲" may not be available. When air conditioner receives this signal, the air conditioner will blow fan automatically.

## Introduction for buttons on remote controller

### 6 CLOCK button

Press this button to set clock time. "🕒" icon on remote controller will blink. Press "+" or "-" button within 5s to set clock time. Each pressing of "+" or "-" button, clock time will increase or decrease 1 minute. If hold "+" or "-" button, 2s later, time will change quickly. Release this button when reaching your required time. Press "CLOCK" button to confirm the time. "🕒" icon stops blinking.

#### Note:

- Clock time adopts 24-hour mode.
- The interval between two operation can't exceeds 5s. Otherwise, remote controller will quit setting status. Operation for TIMER ON/TIMER OFF is the same.

### 7 TIMER ON / TIMER OFF button

#### • TIMER ON button

"TIMER ON" button can set the time for timer on. After pressing this button, "🕒" icon disappears and the word "ON" on remote controller blinks. Press "+" or "-" button to adjust TIMER ON setting. After each pressing "+" or "-" button, TIMER ON setting will increase or decrease 1min. Hold "+" or "-" button, 2s later, the time will change quickly until reaching your required time. Press "TIMER ON" to confirm it. The word "ON" will stop blinking. "🕒" icon resumes displaying. Cancel TIMER ON: Under the condition that TIMER ON is started up, press "TIMER ON" button to cancel it.

#### • TIMER OFF button

"TIMER OFF" button can set the time for timer off. After pressing this button, "🕒" icon disappears and the word "OFF" on remote controller blinks. Press "+" or "-" button to adjust TIMER OFF setting. After each pressing "+" or "-" button, TIMER OFF setting will increase or decrease 1min. Hold "+" or "-" button, 2s later, the time will change quickly until reaching your required time. Press "TIMER OFF" word "OFF" will stop blinking. "🕒" icon resumes displaying. Cancel TIMER OFF. Under the condition that TIMER OFF is started up, press "TIMER OFF" button to cancel it.

#### Note:

- Under on and off status, you can set TIMER OFF or TIMER ON simultaneously.
- Before setting TIMER ON or TIMER OFF, please adjust the clock time.
- After starting up TIMER ON or TIMER OFF, set the constant circulating valid. After that, air conditioner will be turned on or turned off according to setting time. ON/OFF button has no effect on setting. If you don't need this function, please use remote controller to cancel it.

## Introduction for buttons on remote controller

### 8 X-FAN button

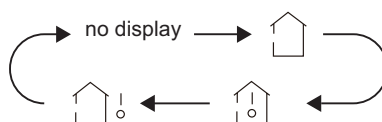
Press this button under cool and dry mode to start up x-fan function, and "⌘" icon on remote controller will be displayed. Press this button again to cancel x-fan function, and "⌘" icon will disappear.

#### Note:

- When x-fan function is on, if the air conditioner is turned off, indoor fan will still operate at low speed for a while to blow the residual water inside the air duct.
- During x-fan operation, press X-FAN button to turn off x-fan function. Indoor fan will stop operation immediately.

### 9 TEMP button

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



- When selecting "🏠" or no display with remote controller, temperature indicator on indoor unit displays set temperature.
- When selecting "🏠" with remote controller, temperature indicator on indoor unit displays indoor ambient temperature.
- When selecting "🏠" with remote controller, temperature indicator on indoor unit displays outdoor ambient temperature.

#### Note:

- Outdoor temperature display is not available for some models. At that time, indoor unit receives "🏠" signal, while it displays indoor set temperature.
- It's defaulted to display set temperature when turning on the unit. There is no display in the remote controller.
- Only for the models whose indoor unit has dual-8 display.
- When selecting displaying of indoor or outdoor ambient temperature, indoor temperature indicator displays corresponding temperature and automatically turn to display set temperature after three or five seconds.

### 10 TURBO button

Under COOL or HEAT mode, press this button to turn to quick COOL or quick HEAT mode. "⚡" icon is displayed on remote controller. Press this button again to exit turbo function and "⚡" icon will disappear.

## Introduction for buttons on remote controller

### 11 SLEEP button

Under COOL, HEAT or DRY mode, press this button to start up sleep function. "☾" icon is displayed on remote controller. Press this button again to cancel sleep function and "☾" icon will disappear.

### 12 LIGHT button

Press this button to turn off display light on indoor unit. "💡" icon on remote controller disappears. Press this button again to turn on display light. "💡" icon is displayed.

## Function introduction for combination buttons

### Child lock function

Press "+" and "-" simultaneously to turn on or turn off child lock function. When child lock function is on, "🔒" icon is displayed on remote controller. If you operate the remote controller, the "🔒" icon will blink three times without sending signal to the unit.

### Temperature display switchover function

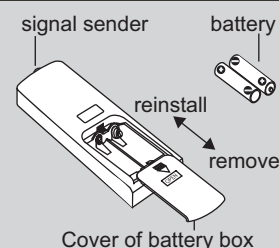
Under OFF status, press "-" and "MODE" buttons simultaneously to switch temperature display between °C and °F.

## Operation guide

1. After putting through the power, press "ON/OFF" button on remote controller to turn on the air conditioner.
2. Press "MODE" button to select your required mode: AUTO, COOL, DRY, FAN, HEAT.
3. Press "+" or "-" button to set your required temperature. (Temperature can't be adjusted under auto mode).
4. Press "FAN" button to set your required fan speed: auto, low, medium and high speed.
5. Press "↗" button to select fan blowing angle.

## Replacement of batteries in remote controller

1. Press the back side of remote controller marked with "OPEN", as shown in the fig, and then push out the cover of battery box along the arrow direction.
2. Replace two 7# (AAA 1.5V) dry batteries, and make sure the position of "+" polar and "-" polar are correct.
3. Reinstall the cover of battery box.

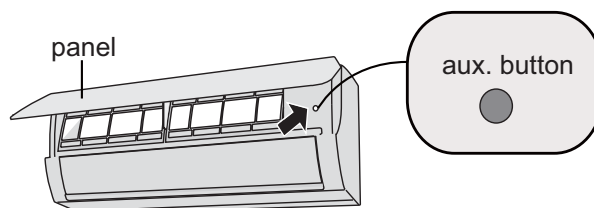


- During operation, point the remote control signal sender at the receiving window on indoor unit.
- The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles between them.
- Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or there's no display, please replace batteries.



## Emergency operation

If remote controller is lost or damaged, please use auxiliary button to turn on or turn off the air conditioner. The operation in details are as below:  
As shown in the fig. Open panel, press aux. button to turn on or turn off the air conditioner. When the air conditioner is turned on, it will operate under auto mode.



### **WARNING:**

Use insulated object to press the auto button

## Clean and maintenance

### **WARNING**

- Turn off the air conditioner and disconnect the power before cleaning the air conditioner to avoid electric shock.
- Do not wash the air conditioner with water to avoid electric shock.
- Do not use volatile liquid to clean the air conditioner.

### **Clean surface of indoor unit**

When the surface of indoor unit is dirty, it is recommended to use a soft dry cloth or wet cloth to wipe it.

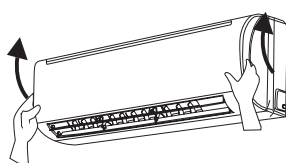
### **NOTICE:**

- Do not remove the panel when cleaning it.

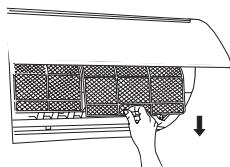
## Clean and maintenance

### Clean filter

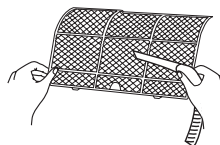
- 1 Open panel**  
Pull out the panel to a certain angle as shown in the fig.



- 2 Remove filter**  
Remove the filter as indicated in the fig.



- 3 Clean filter**
- Use dust catcher or water to clean the filter.
  - When the filter is very dirty, use the water (below 45°C ) to clean it, and then put it in a shady and cool place to dry.



- 4 Install filter**  
Install the filter and then close the panel cover tightly.



### WARNING

- The filter should be cleaned every three months. If there is much dust in the operation environment, clean frequency can be increased.
- After removing the filter, do not touch fins to avoid injury.
- Do not use fire or hair dryer to dry the filter to avoid deformation or fire hazard.

## Clean and maintenance

1. Check whether air inlets and air outlets are blocked.
2. Check whether air switch, plug and socket are in good condition.
3. Check whether filter is clean.
4. Check whether mounting bracket for outdoor unit is damaged or corroded.  
If yes, please contact dealer.
5. Check whether drainage pipe is damaged.

1. Disconnect power supply.
2. Clean filter and indoor unit's panel.
3. Check whether mounting bracket for outdoor unit is damaged or corroded.  
If yes, please contact dealer.

### Notice for recovery

1. Many packing materials are recyclable materials.  
Please dispose them in appropriate recycling unit.
2. If you want to dispose the air conditioner, please contact local dealer or consultant service center for the correct disposal method.

## Malfunction analysis

### General phenomenon analysis

Please check below items before asking for maintenance. If the malfunction still can't be eliminated, please contact local dealer or qualified professionals.

Phenomenon	Check items	Solution
Indoor unit can't receive remote controller's signal or remote controller has no action.	<ul style="list-style-type: none"> <li>Whether it's interfered severely (such as static electricity, stable voltage)?</li> </ul>	<ul style="list-style-type: none"> <li>Pull out the plug. Reinsert the plug after about 3min, and then turn on the unit again.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether remote controller is within the signal receiving range?</li> </ul>	<ul style="list-style-type: none"> <li>Signal receiving range is 8m.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether there are obstacles?</li> </ul>	<ul style="list-style-type: none"> <li>Remove obstacles.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether remote controller is pointing at the receiving window?</li> </ul>	<ul style="list-style-type: none"> <li>Select proper angle and point the remote controller at the receiving window on indoor unit.</li> </ul>
	<ul style="list-style-type: none"> <li>Is sensitivity of remote controller low; fuzzy display and no display?</li> </ul>	<ul style="list-style-type: none"> <li>Check the batteries. If the power of batteries is too low, please replace them.</li> </ul>
	<ul style="list-style-type: none"> <li>No display when operating remote controller?</li> </ul>	<ul style="list-style-type: none"> <li>Check whether remote controller appears to be damaged. If yes, replace it.</li> </ul>
	<ul style="list-style-type: none"> <li>Fluorescent lamp in room?</li> </ul>	<ul style="list-style-type: none"> <li>Take the remote controller close to indoor unit.</li> <li>Turn off the fluorescent lamp and then try it again.</li> </ul>
No air emitted from indoor unit	<ul style="list-style-type: none"> <li>Air inlet or air outlet of indoor unit is blocked?</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate obstacles.</li> </ul>
	<ul style="list-style-type: none"> <li>Under heating mode, indoor temperature is reached to set temperature?</li> </ul>	<ul style="list-style-type: none"> <li>After reaching to set temperature, indoor unit will stop blowing out air.</li> </ul>
	<ul style="list-style-type: none"> <li>Heating mode is turned on just now?</li> </ul>	<ul style="list-style-type: none"> <li>In order to prevent blowing out cold air, indoor unit will be started after delaying for several minutes, which is a normal phenomenon.</li> </ul>

## Malfunction analysis

Phenomenon	Check items	Solution
Air conditioner can't operate	• Power failure?	• Wait until power recovery.
	• Is plug loose?	• Reinsert the plug.
	• Circuit break trips off or fuse is burnt out?	• Ask professional to replace circuit break or fuse.
	• Wiring has malfunction?	• Ask professional to replace it.
	• Unit has restarted immediately after stopping operation?	• Wait for 3min, and then turn on the unit again.
	• Whether the function setting for remote controller is correct?	• Reset the function.
Mist is emitted from indoor unit's air outlet	• Indoor temperature and humidity is high?	• Because indoor air is cooled rapidly. After a while, indoor temperature and humidity will be decrease and mist will disappear.
Set temperature can't be adjusted	• Unit is operating under auto mode?	• Temperature can't be adjusted under auto mode. Please switch the operation mode if you need to adjust temperature.
	• Your required temperature exceeds the set temperature range?	• Set temperature range: 16°C ~30°C .
Cooling (heating) effect is not good.	• Voltage is too low?	• Wait until the voltage resumes normal.
	• Filter is dirty?	• Clean the filter.
	• Set temperature is in proper range?	• Adjust temperature to proper range.
	• Door and window are open?	• Close door and window.

## Malfunction analysis

Phenomenon	Check items	Solution
Odours are emitted	<ul style="list-style-type: none"> <li>Whether there's odour source, such as furniture and cigarette, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate the odour source.</li> <li>Clean the filter.</li> </ul>
Air conditioner operates abnormally	<ul style="list-style-type: none"> <li>Whether there's interference, such as thunder, wireless devices, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Disconnect power, put back power, and then turn on the unit again.</li> </ul>
Outdoor unit has vapor	<ul style="list-style-type: none"> <li>Heating mode is turned on?</li> </ul>	<ul style="list-style-type: none"> <li>During defrosting under heating mode, it may generate vapor, which is a normal phenomenon.</li> </ul>
"Water flowing" noise	<ul style="list-style-type: none"> <li>Air conditioner is turned on or turned off just now?</li> </ul>	<ul style="list-style-type: none"> <li>The noise is the sound of refrigerant flowing inside the unit, which is a normal phenomenon.</li> </ul>
Cracking noise	<ul style="list-style-type: none"> <li>Air conditioner is turned on or turned off just now?</li> </ul>	<ul style="list-style-type: none"> <li>This is the sound of friction caused by expansion and/or contraction of panel or other parts due to the change of temperature.</li> </ul>

## Malfunction analysis

### Error Code

- When air conditioner status is abnormal, temperature indicator on indoor unit will blink to display corresponding error code. Please refer to below list for identification of error code.



Above indicator diagram is only for reference. Please refer to actual product for the actual indicator and position.

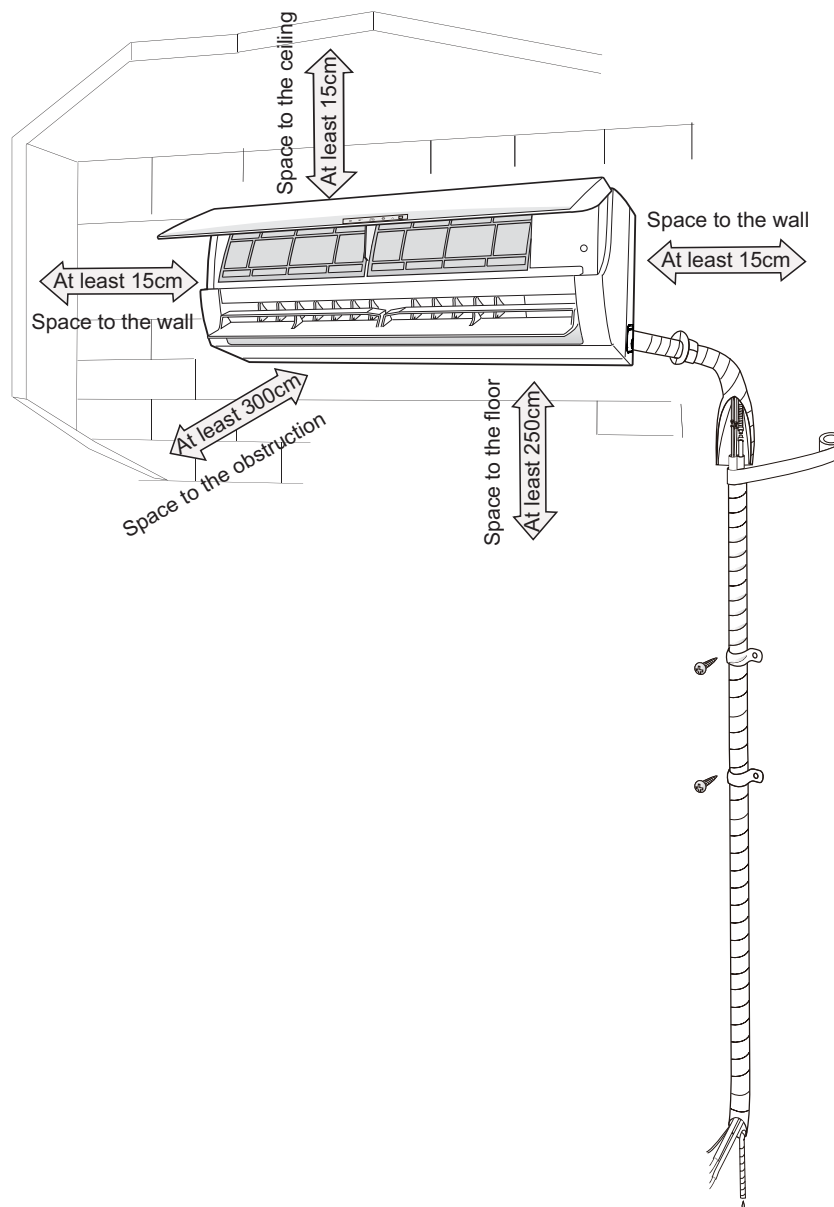
Error code	Troubleshooting
Heating indicator ON 10s OFF 0.5s	Means defrosting status. It's the normal phenomenon.
E5	It can be eliminated after restarting the unit. If not, please contact qualified professionals for service.
H6	It can be eliminated after restarting the unit. If not, please contact qualified professionals for service.
C5	Please contact qualified professionals for service.
F1	Please contact qualified professionals for service.
F2	Please contact qualified professionals for service.
E6	It can be eliminated after restarting the unit. If not, please contact qualified professionals for service.

Note: If there're other error codes, please contact qualified professionals for service.

### WARNING

- When below phenomenon occurs, please turn off air conditioner and disconnect power immediately, and then contact the dealer or qualified professionals for service.
  - Power cord is overheating or damaged.
  - There's abnormal sound during operation.
  - Air switch trips off frequently.
  - Air conditioner gives off burning smell.
  - Indoor unit is leaking.
- Do not repair or refit the air conditioner by yourself.
- If the air conditioner operates under abnormal conditions, it may cause malfunction, electric shock or fire hazard.

## Installation dimension diagram





## Tools for installation

1 Level meter	2 Screw driver	3 Impact drill
4 Drill head	5 Pipe expander	6 Torque wrench
7 Open-end wrench	8 Pipe cutter	9 Leakage detector
10 Vacuum pump	11 Pressure meter	12 Universal meter
13 Inner hexagon spanner		14 Measuring tape

### Note:

- Please contact the local agent for installation.
- Don't use unqualified power cord.

## Selection of installation location

Basic requirement	Indoor unit
<p>Installing the unit in the following places may cause malfunction. If it is unavoidable, please consult the local dealer:</p> <ol style="list-style-type: none"> <li>1. The place with strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.</li> <li>2. The place with high-frequency devices (such as welding machine, medical equipment).</li> <li>3. The place near coast area.</li> <li>4. The place with oil or fumes in the air.</li> <li>5. The place with sulfureted gas.</li> <li>6. Other places with special circumstances.</li> <li>7. The appliance shall not be installed in the laundry</li> </ol>	<ol style="list-style-type: none"> <li>1. There should be no obstruction near air inlet and air outlet.</li> <li>2. Select a location where the condensation water can be dispersed easily and won't affect other people.</li> <li>3. Select a location which is convenient to connect the outdoor unit and near the power socket.</li> <li>4. Select a location which is out of reach for children.</li> <li>5. The location should be able to withstand the weight of indoor unit and won't increase noise and vibration.</li> <li>6. The appliance must be installed 2.5m above floor.</li> <li>7. Don't install the indoor unit right above the electric appliance.</li> <li>8. Please try your best to keep way from fluorescent lamp.</li> </ol>

## Requirements for electric connection

### Safety precaution

1. Must follow the electric safety regulations when installing the unit.
2. According to the local safety regulations, use qualified power supply circuit and circuit break.
3. Make sure the power supply matches with the requirement of air conditioner. Unstable power supply or incorrect wiring or malfunction. Please install proper power supply cables before using the air conditioner.
4. Properly connect the live wire, neutral wire and grounding wire of power socket.
5. Be sure to cut off the power supply before proceeding any work related to electricity and safety.
6. Do not put through the power before finishing installation.
7. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
8. The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.
9. The appliance shall be installed in accordance with national wiring regulations.
10. Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.

### Grounding requirement

1. The air conditioner is the first class electric appliance. It must be properly grounding with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
2. The yellow-green wire in air conditioner is grounding wire, which can't be used for other purposes.
3. The grounding resistance should comply with national electric safety regulations.
4. The appliance must be positioned so that the plug is accessible.
5. An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
6. Including an circuit break with suitable capacity, please note the following table. Circuit break should be included magnet buckle and heating buckle function, it can protect the circuit-short and overload. (Caution: please do not use the fuse only for protect the circuit)

## Installation of indoor unit

### Step one: choosing installation location

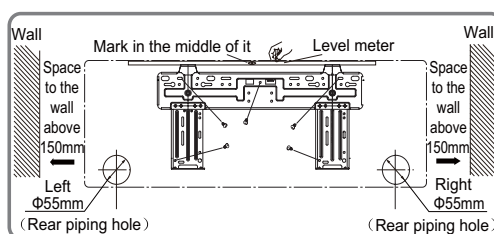
Recommend the installation location to the client and then confirm it with the client.

### Step two: install wall-mounting frame

1. Hang the wall-mounting frame on the wall; adjust it in horizontal position with the level meter and then point out the screw fixing holes on the wall.
2. Drill the screw fixing holes on the wall with impact drill (the specification of drill head should be the same as the plastic expansion particle) and then fill the plastic expansion particles in the holes.
3. Fix the wall-mounting frame on the wall with tapping screws (ST4.2X25TA) and then check if the frame is firmly installed by pulling the frame. If the plastic expansion particle is loose, please drill another fixing hole nearby.

### Step three: open piping hole

1. Choose the position of piping hole according to the direction of outlet pipe. The position of piping hole should be a little lower than the wall-mounted frame, shown as below.

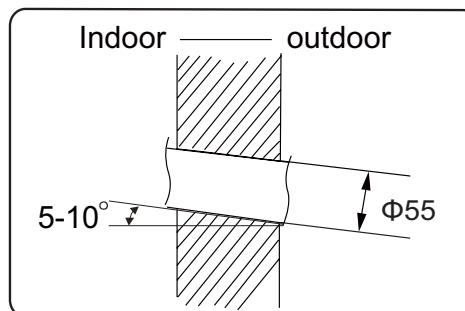


2. Open a piping hole with the diameter of  $\Phi 55$  on the selected outlet pipe position. In order to drain smoothly, slant the piping hole on the wall slightly downward to the outdoor side with the gradient of  $5-10^\circ$ .

## Installation of indoor unit

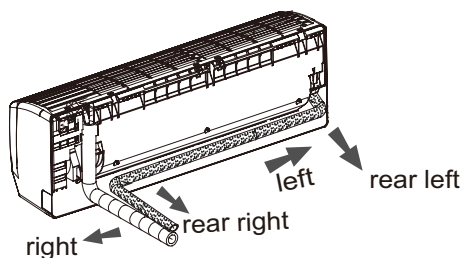
### Note:

- Pay attention to dust prevention and take relevant safety measures when opening the hole.
- The plastic expansion particles are not provided and should be bought locally.

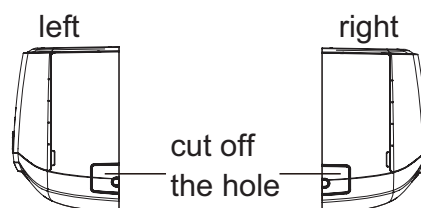


### Step four: outlet pipe

1. The pipe can be led out in the direction of right, rear right, left or rear left.

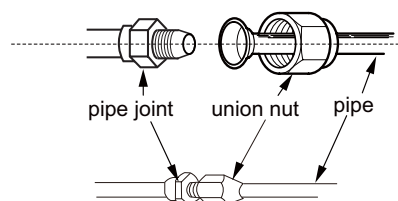


2. When select leading out the pipe from left or right, please cut off the corresponding hole on the bottom case.



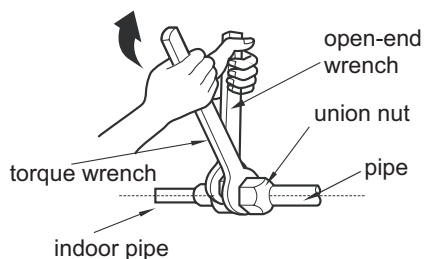
### Step five: connect the pipe of indoor unit

1. Aim the pipe joint at the corresponding bellmouth.
2. Pretightening the union nut with hand.



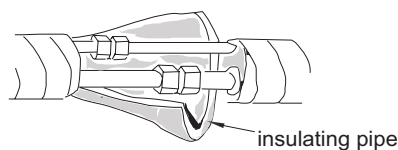
3. Adjust the torque force by referring to the following sheet. Place the open-end wrench on the pipe joint and place the torque wrench on the union nut. Tighten the union nut with torque wrench.

## Installation of indoor unit



Hex nut diameter	Tightening torque (N·m)
Φ 6	15~20
Φ 9.52	30~40
Φ 12	45~55
Φ 16	60~65
Φ 19	70~75

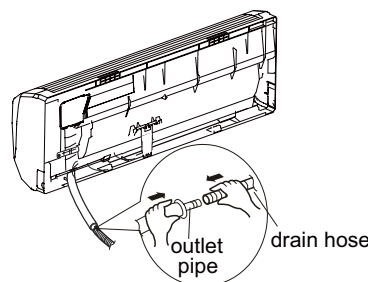
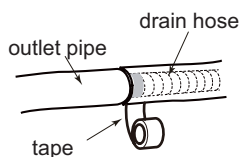
4. Wrap the indoor pipe and joint of connection pipe with insulating pipe, and then wrap it with tape.



### Step six: install drain hose

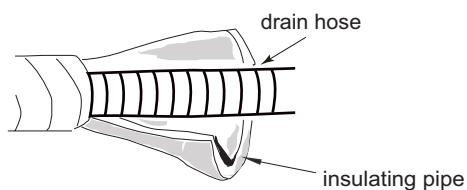
1. Connect the drain hose to the outlet pipe of indoor unit.

2. Bind the joint with tape.



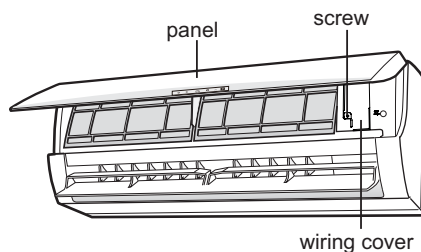
#### Note:

- Add insulating pipe in the indoor drain hose in order to prevent condensation.
- The plastic expansion particles are not provided.



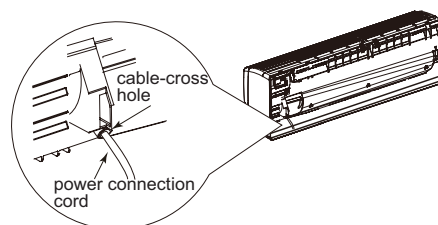
### Step seven: connect wire of indoor unit

1. Open the panel, remove the screw on the wiring cover and then take down the cover.



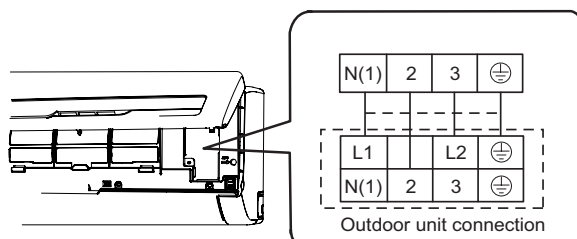
## Installation of indoor unit

2. Make the power connection cord go through the cable-cross hole at the back of indoor unit and then pull it out from the front side.



3. Remove the wire clip; connect the power connection cord to the wiring terminal according to the color ;tighten the screws and then fix the power connection cord with wire clip.

If there is no wired controller in the product you bought ,you should put the wire fixed by the wire clip inside of the electric box first before connecting the power connection cord.



4. Put wiring cover back and then tighten the screw.
5. Close the panel.

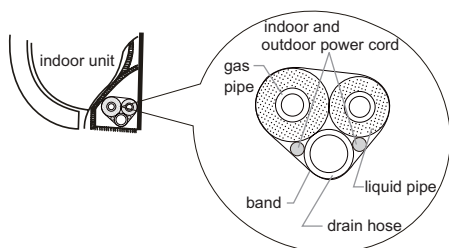
### Note:

- All wires of indoor unit and outdoor unit should be connected by a professional.
- If the length of power connection cord is insufficient, please contact the supplier for a new one. Avoid extending the cord by yourself.
- For the air conditioner with plug, the plug should be reachable after finishing installation.
- For the air conditioner without plug, an circuit break must be installed in the line. The air switch should be all-pole parting and the contact parting distance should be more than 3mm.

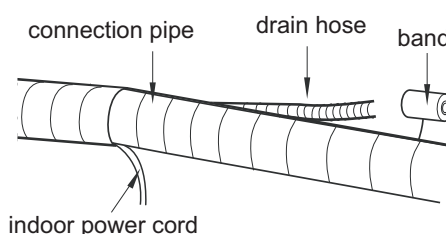
## Installation of indoor unit

### Step eight: bind up pipe

1. Bind up the connection pipe, power cord and drain hose with the band.



2. Reserve a certain length of drain hose and power cord for installation when binding them. When binding to a certain degree, separate the indoor power and then separate the drain hose.



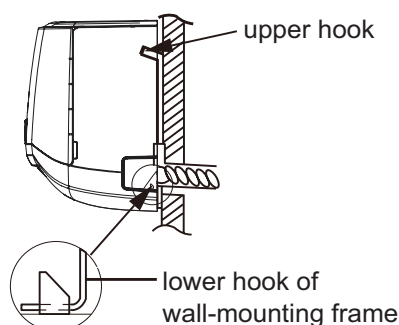
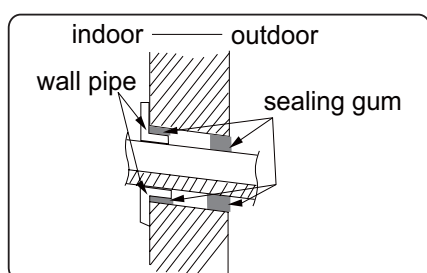
3. Bind them evenly.
4. The liquid pipe and gas pipe should be bound separately at the end.

#### Note:

- The power cord and control wire can't be crossed or winding.
- The drain hose should be bound at the bottom.

### Step nine: hang the indoor unit

1. Put the bound pipes in the wall pipe and then make them pass through the wall hole.
2. Hang the indoor unit on the wall-mounting frame.
3. Stuff the gap between pipes and wall hole with sealing gum.
4. Fix the wall pipe.
5. Check if the indoor unit is installed firmly and closed to the wall.



#### Note:

- Do not bend the drain hose too excessively in order to prevent blocking.

## Check after installation

- Check according to the following requirement after finishing installation.

Items to be checked	Possible malfunction
Has the unit been installed 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 of pipeline sufficient?	It may cause condensation and water dripping.
Is water drained well?	It may cause condensation and water dripping.
Is the voltage of power supply according to the voltage marked on the nameplate?	It may cause malfunction or damaging the parts.
Is electric wiring and pipeline installed correctly?	It may cause malfunction or damaging the parts.
Is the unit grounded securely?	It may cause electric leakage.
Does the power cord follow the specification?	It may cause malfunction or damaging the parts.
Is there any obstruction in the air inlet and outlet?	It may cause insufficient cooling (heating) capacity.
The dust and sundries caused during installation are removed?	It may cause malfunction or damaging the parts.
The gas valve and liquid valve of connection pipe are open completely?	It may cause insufficient cooling (heating) capacity.

## Test operation

### 1. Preparation of test operation

- The client approves the air conditioner.
- Specify the important notes for air conditioner to the client.

### 2. Method of test operation

- Put through the power, press ON/OFF button on the remote controller to start operation.
- Press MODE button to select AUTO, COOL, DRY, FAN and HEAT to check whether the operation is normal or not.
- If the ambient temperature is lower than 16°C , the air conditioner can't start cooling.



## Configuration of connection pipe

1. Standard length of connection pipe
  - 5m, 7.5m, 8m.
2. Min. length of connection pipe is 3m.
3. Max. length of connection pipe and max. high difference.

Cooling capacity	Max length of connection pipe	Max height difference	Cooling capacity	Max length of connection pipe	Max height difference
5000Btu/h (1465W)	15	5	24000Btu/h (7032W)	25	10
7000Btu/h (2051W)	15	5	28000Btu/h (8204W)	30	10
9000Btu/h (2637W)	15	5	36000Btu/h (10548W)	30	20
12000Btu/h (3516W)	20	10	42000Btu/h (12306W)	30	20
18000Btu/h (5274W)	25	10	48000Btu/h (14064W)	30	20

4. The additional refrigerant oil and refrigerant charging required 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):
 
$$\text{Additional refrigerant charging amount} = \text{prolonged length of liquid pipe} \times \text{additional refrigerant charging amount per meter}$$
  - Basing on the length of standard pipe, add refrigerant according to the requirement as shown in the table. The additional refrigerant charging amount per meter is different according to the diameter of liquid pipe. See the following sheet.

## Configuration of connection pipe

Additional refrigerant charging amount for R22, R407C, R410A and R134a

Diameter of connection pipe		Outdoor unit throttle	
Liquid pipe(mm)	Gas pipe(mm)	Cooling only(g/m)	Cooling and heating(g/m)
Φ6	Φ9.52 or Φ12	15	20
Φ6 or Φ9.52	Φ16 or Φ19	15	50
Φ12	Φ19 or Φ22.2	30	120
Φ16	Φ25.4 or Φ31.8	60	120
Φ19	—	250	250
Φ22.2	—	350	350

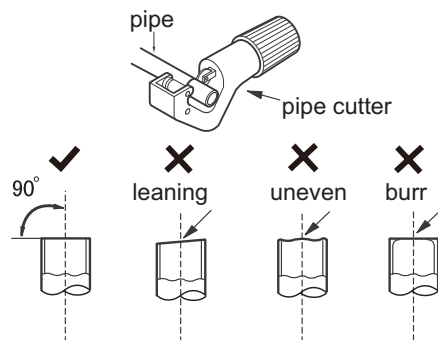
## Pipe expanding method

### Note:

Improper pipe expanding is the main cause of refrigerant leakage. Please expand the pipe according to the following steps:

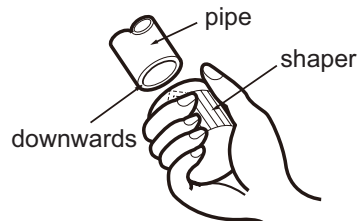
#### A: Cut the pipe

- Confirm the pipe length according to the distance of indoor unit and outdoor unit.
- Cut the required pipe with pipe cutter.



#### B: Remove the burrs

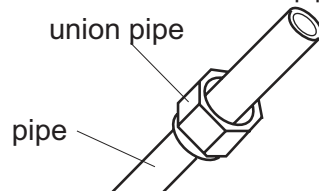
- Remove the burrs with shaper and prevent the burrs from getting into the pipe.



#### C: Put on suitable insulating pipe

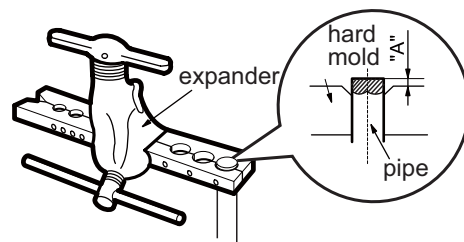
#### D: Put on the union nut

- Remove the union nut on the indoor connection pipe and outdoor valve; install the union nut on the pipe.



#### E: Expand the port

- Expand the port with expander.



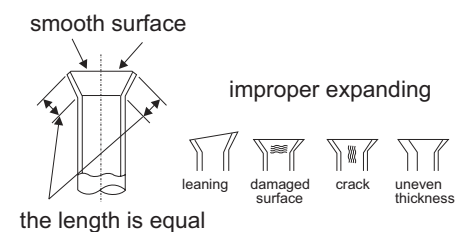
### Note:

- "A" is different according to the diameter, please refer to the sheet below:

Outer diameter (mm)	A(mm)	
	Max	Min
Φ6 - 6.35(1/4")	1.3	0.7
Φ9.52(3/8")	1.6	1.0
Φ12-12.7(1/2")	1.8	1.0
Φ15.8-16(5/8")	2.4	2.2

#### F: Inspection

- Check the quality of expanding port. If there is any blemish, expand the port again according to the steps above.



## Wired Controller (Optional)

If the product you bought is equipped with wired controller, please refer to the following introductions of wired controller.

### 1 Displaying Part

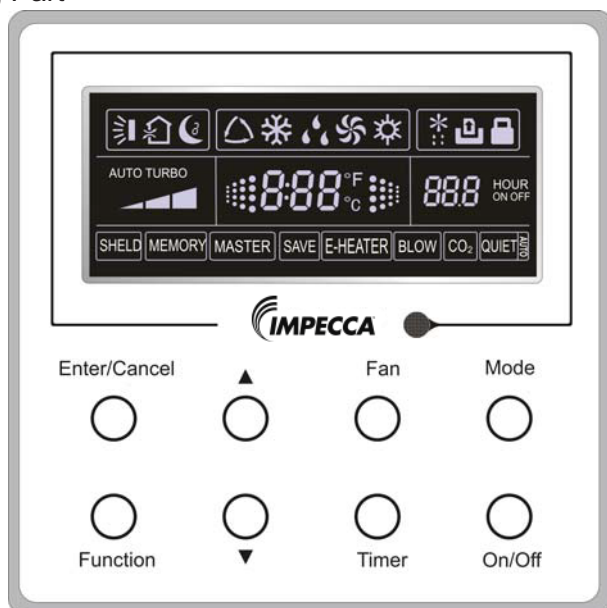


Fig1.1.1 Outline of wired controller

### 1.1 LCD Display of Wired Controller

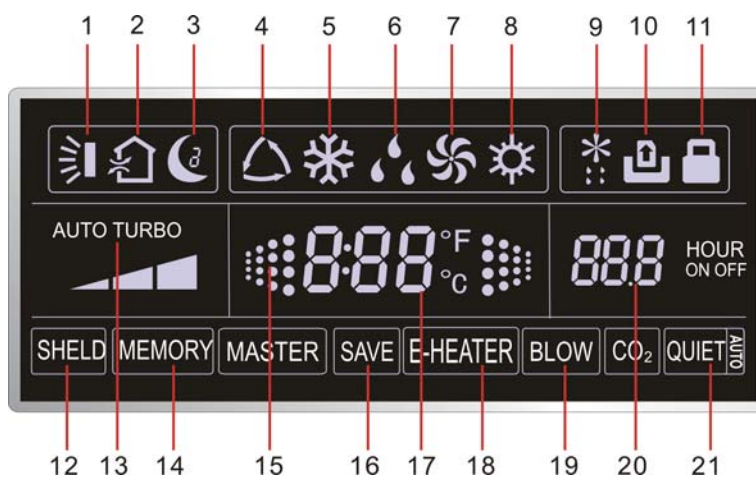
















Fig.1.1.2 LCD display

## Wired Controller (Optional)

### 1.2 Instruction to LCD Display

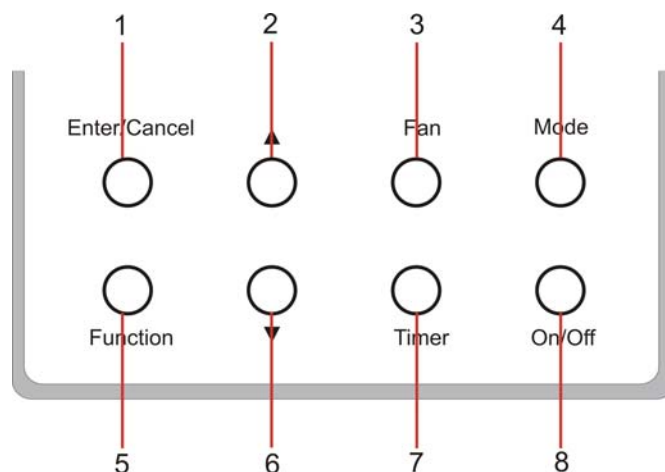
Table 1.1

No.	Symbols	Description
1		Swing function
2		Air exchange function (this function is yet unavailable for this unit).
3		Sleep function (Only sleep 1).
4		Each kind of running mode of indoor unit (auto mode)
5		Cooling mode
6		Dry mode
7		Fan mode
8		Heating mode
9		Defrosting function for the outdoor unit.
10		Gate-control function (this function is yet unavailable for this unit).
11		Lock function.
12	SHIELD	Shield functions (Button operation, temperature setting, On/Off operation, Mode setting are disabled by the remote monitoring system.)
13	Turbo	Turbo function state
14	MEMORY	Memory function (The indoor unit resumes the original setting state after power failure and then power recovery).
15		It blinks under on state of the unit without operation of any button.
16	SAVE	Energy-saving function (this function is yet unavailable for this unit).
17		Ambient/setting temperature value
18	E-HEATER	Electric auxiliary heating function.
19	BLOW	Blow function.
20		Timing value.
21	QUIET	Quiet function (two types: quiet and auto quiet) (this function is yet unavailable for this unit).

## Wired Controller (Optional)

### 2 Buttons

#### 2.1 Layout of Buttons



#### 2.2 Functions of Buttons

Table 2.1

No.	Name	Function
1	Enter/Cancel	Function selection and cancellation.
2	▲	① . Running temperature setting of the indoor unit, range:16~30°C. ② . Timer setting, range:0.5-24 hr.
6	▼	
3	Fan	Setting of the high/middle/low/auto fan speed.
4	Mode	Setting of the Cooling/Heating/Fan/Dry/Auto mode of the indoor unit.
5	Function	Switchover among the functions of Turbo/Save/E-heater/Blow etc..
7	Timer	Timer setting.
8	On/Off	Turn on/off the indoor unit
4+2	▲+Mode	Press them for 5s under off state of the unit to enter/cancel the Memory function(If memory is set, indoor unit after power failure and then power recovery will resume the original setting state. If not, the indoor unit is defaulted to be off after power recovery. Memory off is default before delivery.).
3+6	Fan+▼	By pressing them at the same time under off state of the unit, ❄️ will be displayed on the wired controller for the cooling only unit, while ⚙️ will be displayed on the wired controller for the cooling and heating unit.
2+6	▲+▼	Upon startup of the unit without malfunction or under off state of the unit,press them at the same time for 5s to enter the lock state, in which case,any other buttons won't respond the press. Repress them for 5s to quit this state.

## Wired Controller (Optional)

### 3 Operation Instructions

#### 3.1 On/Off

Press On/Off to turn on the unit and turn it off by another press.

Note: The state shown in Fig.3.1.1 indicates the "Off" state of the unit after power on. The state shown in Fig.3.1.2 indicates the "On" state of the unit after power on.

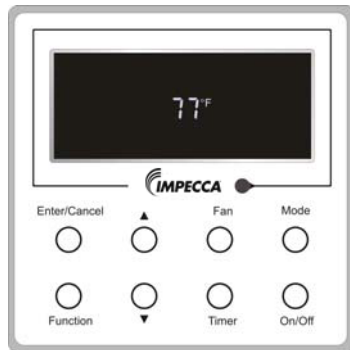


Fig.3.1.1 "Off" State

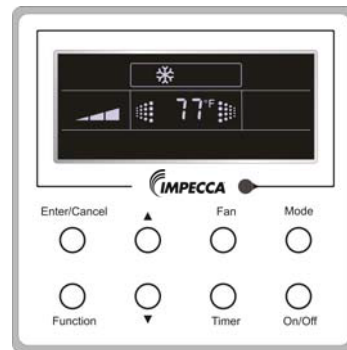
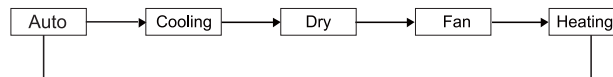


Fig.3.1.2 "On" State

#### 3.2 Mode Setting

Under ON state of the unit, press the Mode to switch the operation modes as the following sequence: Auto–Cooling–Dry–Fan–Heating.



#### 3.3 Temperature Setting

Press ▲ or ▼ to increase/decrease the preset temperature. If pressing either of them continuously, the temperature will be increased or decreased by 1°C every 0.5s, as shown in Fig.3.3.1.

In the Cooling, Dry, Fan or Heating mode, the temperature setting range is 16°C~30°C.

In the Auto mode, the setting temperature is unadjustable.

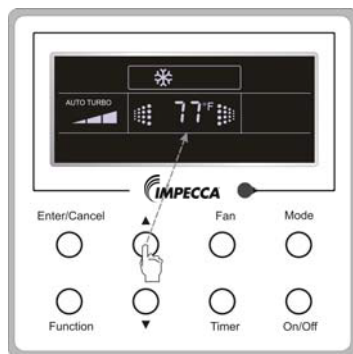


Fig.3.3.1

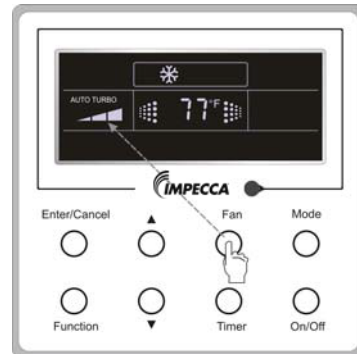
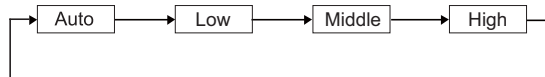


Fig.3.4.1

## Wired Controller (Optional)

### 3.4 Fan Setting

Under the "On" state of the unit, press Fan and then fan speed of the indoor unit will change circularly as shown in Fig.3.4.1.



### 3.5 Timer Setting

Under on-state of the unit, Press Timer button to set timer off of the unit. Under off-state of the unit, press Timer button to set timer on of the unit in the same way.

- Timer on setting:

Under off-state of the unit without timer setting, if Timer button is pressed, LCD will display xx. Hour, with ON blinking. In this case, press ▲ or ▼ button to adjust timer on and then press Timer to confirm.

- Timer off setting:

Under on-state of the unit without timer setting, if Timer button is pressed, LCD will display xx. Hour, with OFF blinking. In this case, press ▲ or ▼ button to adjust timer on and then press Timer to confirm.

- Cancel timer:

After setting of timer, if Timer button is pressed, LCD won't display xx. Hour so that timer setting is canceled.

Timer off setting under the "On" state of the unit is shown as Fig.3.5.1.

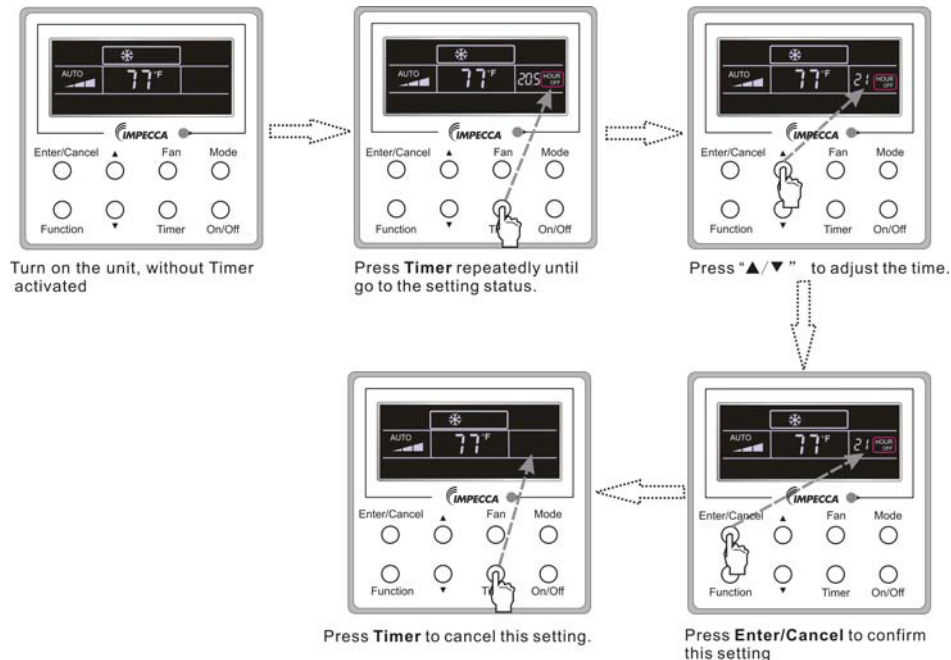


Fig.3.5.1 Timer off Setting under the "On" State of the Unit



## Wired Controller (Optional)

Timer on setting under the "Off" state of the unit is shown as Fig.3.5.2.

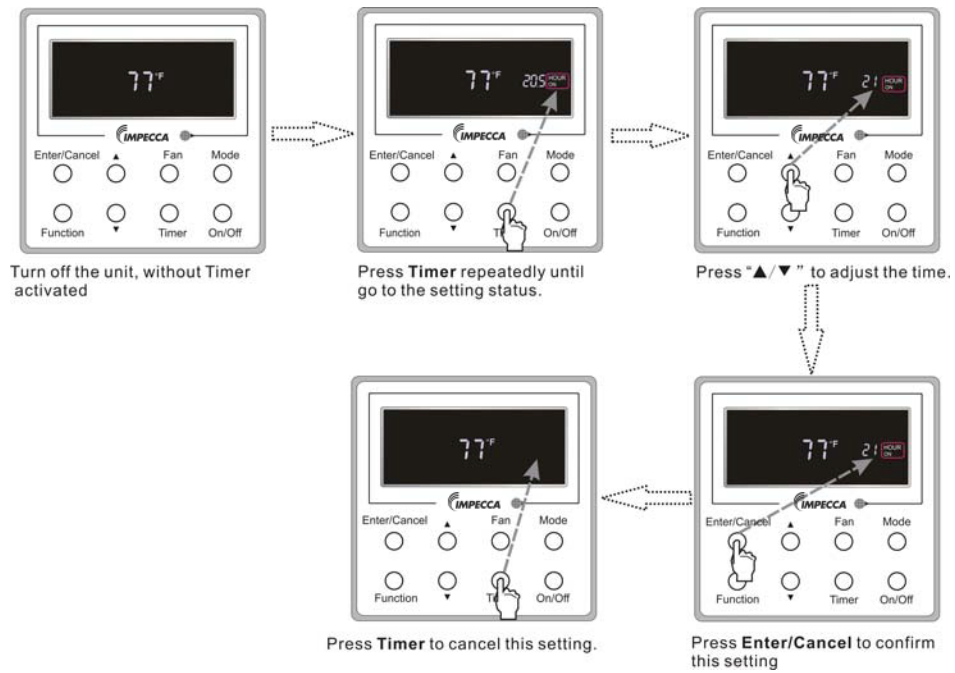




Fig.3.5.2 Timer on Setting under the "Off" State of the Unit

Timer range: 0.5-24hr. Every press of **▲** or **▼** will make the set time increased or decreased by 0.5hr. If either of them is pressed continuously, the set time will increase/ decrease by 0.5hr every 0.5s.

## Wired Controller (Optional)

### 3.6 Swing Setting

**Swing On:** Press **Function** under on state of the unit to activate the swing function. In this case,  will blink. After that, press **Enter/Cancel** to make a confirmation.

**Swing Off:** When the Swing function is on, press **Function** to enter the Swing setting interface, with  blinking. After that, press **Enter/Cancel** to cancel this function. Swing setting is shown as Fig.3.6.1.

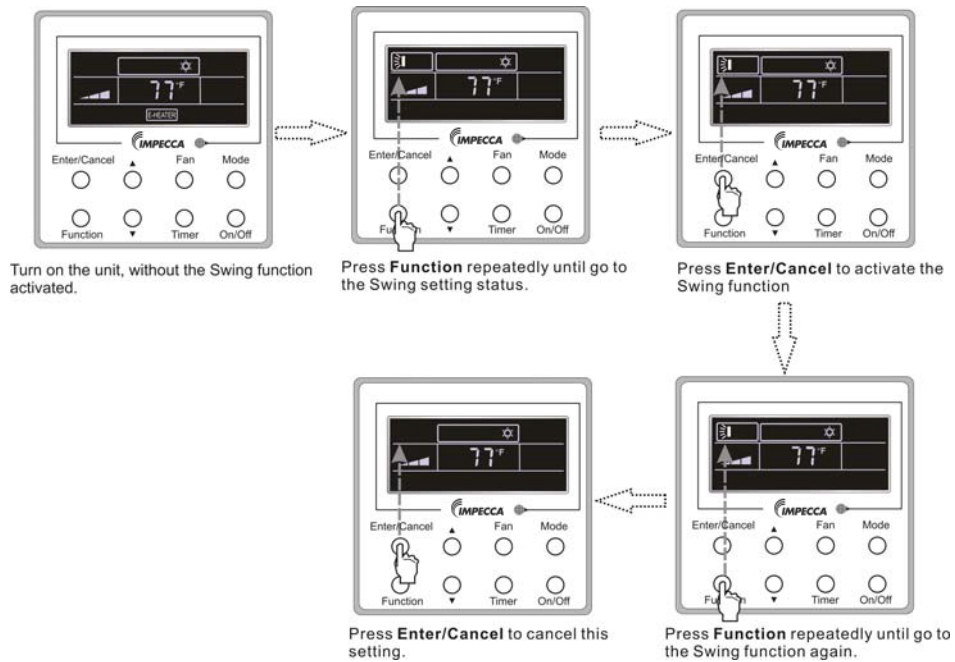


Fig.3.6.1 Swing Setting

Notes:

- ① . Sleep, Turbo or Blow setting is the same as the Swing setting.
- ② . After the setting has been done, it has to press the key "Enter/Cancel" to back to the setting status or quit automatically five seconds later.

## Wired Controller (Optional)

### 3.7 Sleep Setting

**Sleep on:** Press **Function** under the **On** state of the unit till the unit enters the Sleep setting state. After that, press **Enter/Cancel** to confirm this setting.

**Sleep off:** When the Sleep function is activated, press **Function** to enter the Sleep setting status. After that, press **Enter/Cancel** to cancel this function.

In the Cooling or Dry mode, the temperature will increase by 1°C after the unit runs under Sleep1 for 1hr and 1°C after another 1hr. After that, the unit will run at this temperature.

In the Heating mode, the temperature will decrease by 1°C after the unit runs under Sleep 1 for 1hr and 1°C after another 1hr. After that, the unit will run at this temperature.

Sleep setting is shown as Fig.3.7.1.

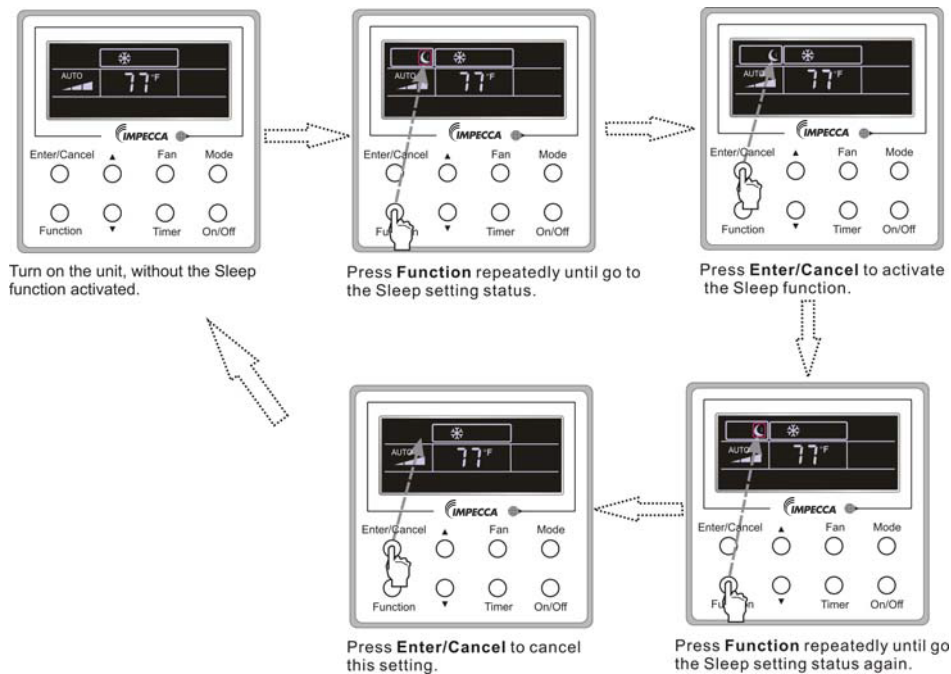


Fig.3.7.1. Sleep Setting

## Wired Controller (Optional)

### 3.8 Turbo Setting

Turbo function: The unit at the high fan speed can realize quick cooling or heating so that the room temperature can quickly approach the setting value.

In the Cooling or Heating mode, press **Function** till the unit enters the Turbo setting status and then press **Enter/Cancel** to confirm the setting.

When the Turbo function is activated, press **Function** to enter the Turbo setting status and then press **Enter/Cancel** to cancel this function.

Turbo function setting is as shown in Fig.3.8.1.

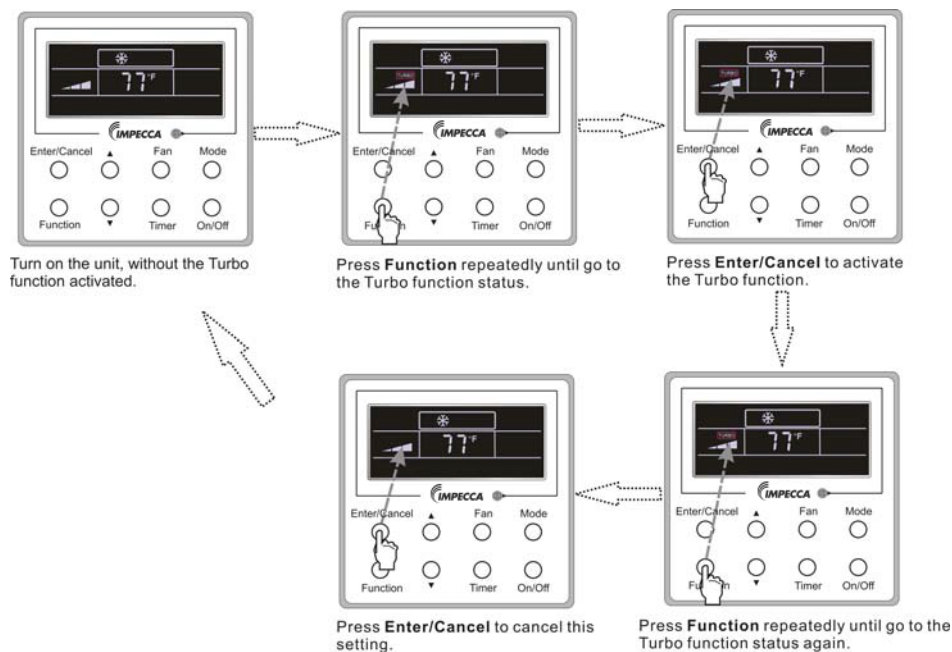


Fig.3.8.1 Turbo Setting

## Wired Controller (Optional)

### 3.9 E-heater Setting

E-heater (auxiliary electric heating function): In the Heating mode, E-heater is allowed to be turned on for improvement of efficiency.

Once the wired controller or the remote controller enters the Heating mode, this function will be turned on automatically.

Press **Function** in the Heating mode to enter the E-heater setting interface and then press **Enter/Cancel** to cancel this function.

Press **Function** to enter the E-heater setting status, if the E-heater function is not activated, and then press **Enter/Cancel** to activate it.

The setting of this function is shown as Fig.3.9.1 below:

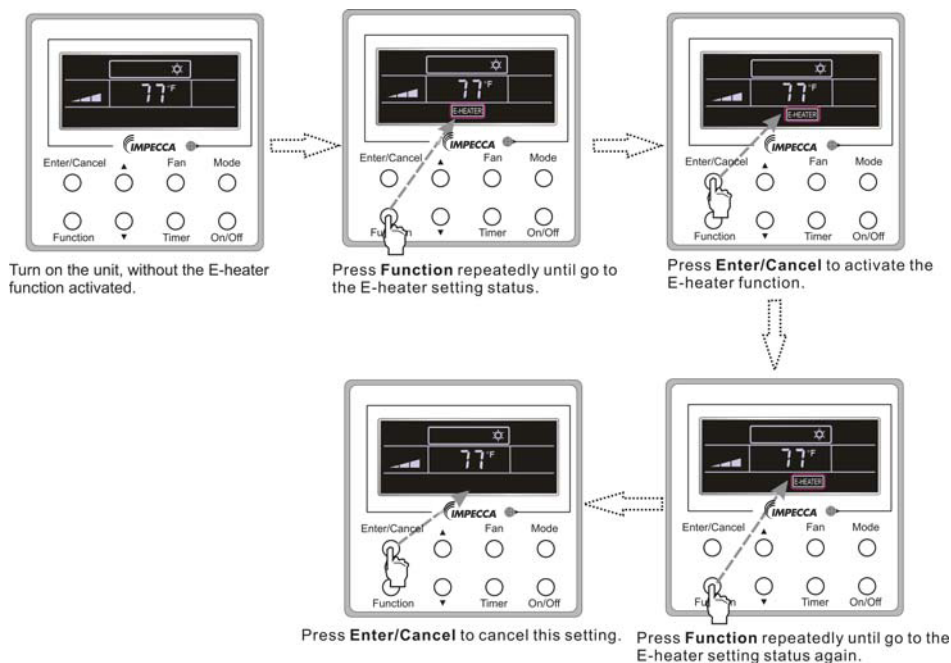


Fig.3.9.1 E-heater Setting

## Wired Controller (Optional)

### 3.10 Blow Setting

Blow function: After the unit is turned off, the water in evaporator of indoor unit will be automatically evaporated to avoid mildew.

In the Cooling or Dry mode, press **Function** till the unit enters the Blow setting status and then press **Enter/Cancel** to active this function.

When the Blow function is activated, press **Function** to the Blow setting status and then press **Enter/Cancel** to cancel this function.

Blow function setting is as shown in Fig.3.10.1

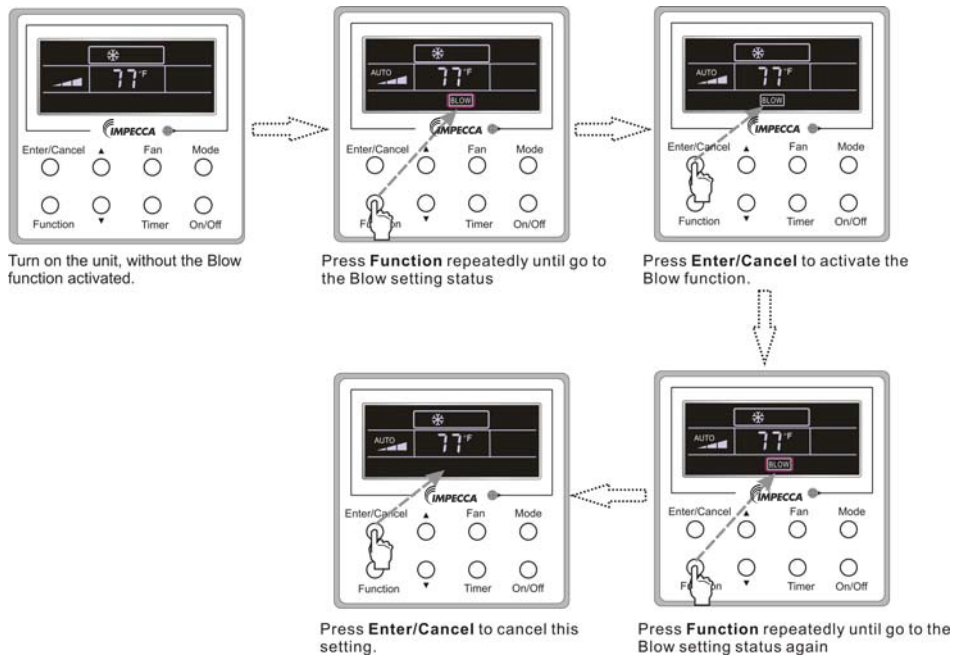


Fig.3.10.1 Blow Setting

Notes:


① . When the Blow function is activated, if turning off the unit by pressing On/Off or by the remote controller, the indoor fan will run at the low fan speed for 2 min, with "BLOW" displayed on the LCD. While, if the Blow function is deactivated, the indoor fan will be turned off directly.

② . Blow function is unavailable in the Fan or Heating mode.

## Wired Controller (Optional)

### 3.11 Other Functions

#### a. Lock

Upon startup of the unit without malfunction or under the "Off" state of the unit, press ▲ and ▼ at the same time for 5s till the wired controller enters the Lock function. In this case, LCD displays .

After that, repress these two buttons at the same time for 5s to quit this function.

Under the Lock state, any other button press won't get any response.

#### b. Memory

Memory switchover: Under the "Off" state of the unit, press Mode and ▲ at the same time for 5s to switch memory states between memory on and memory off. When this function is activated, Memory will be displayed. If this function is not set, the unit will be under the "Off" state after power failure and then power recovery.

Memory recovery: If this function has been set for the wired controller, the wired controller after power failure will resume its original running state upon power recovery. Memory contents: On/Off, Mode, set temperature, set fan speed and Lock function.

## 4 Installation and Dismantlement

### 4.1 Connection of the Signal Line of the Wired Controller

- Open the cover of the electric control box of the indoor unit.
- Let the single line of the wired controller through the rubber ring.
- Connect the signal line of the wired control to the 4-pin socket of the indoor unit PCB.
- Tighten the signal wire with ties.
- The communication distance between the main board and the wired controller can be up to 20 meters ( the standard distance is 8 meters)

### 4.2 Installation of the Wired Controller

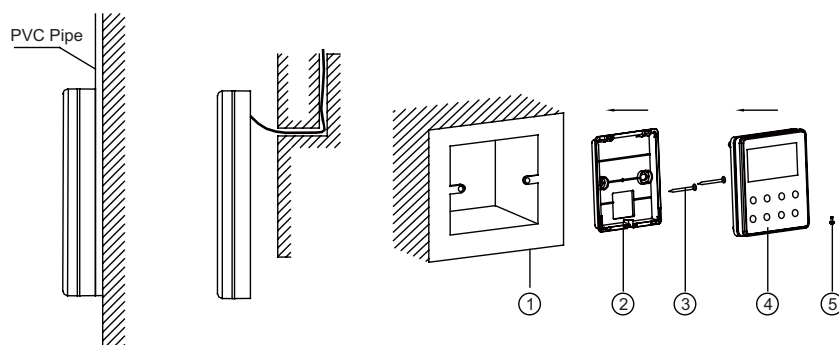


Fig.4.1 Accessories for the Installation of the Wired Controller

Table 4.1

No.	1	2	3	4	5
Name	Socket box embedded in the wall	Soleplate of the Wired Controller	Screw M4X25	Front Panel of the Wired Controller	Screw ST 2.9X6

## Wired Controller (Optional)

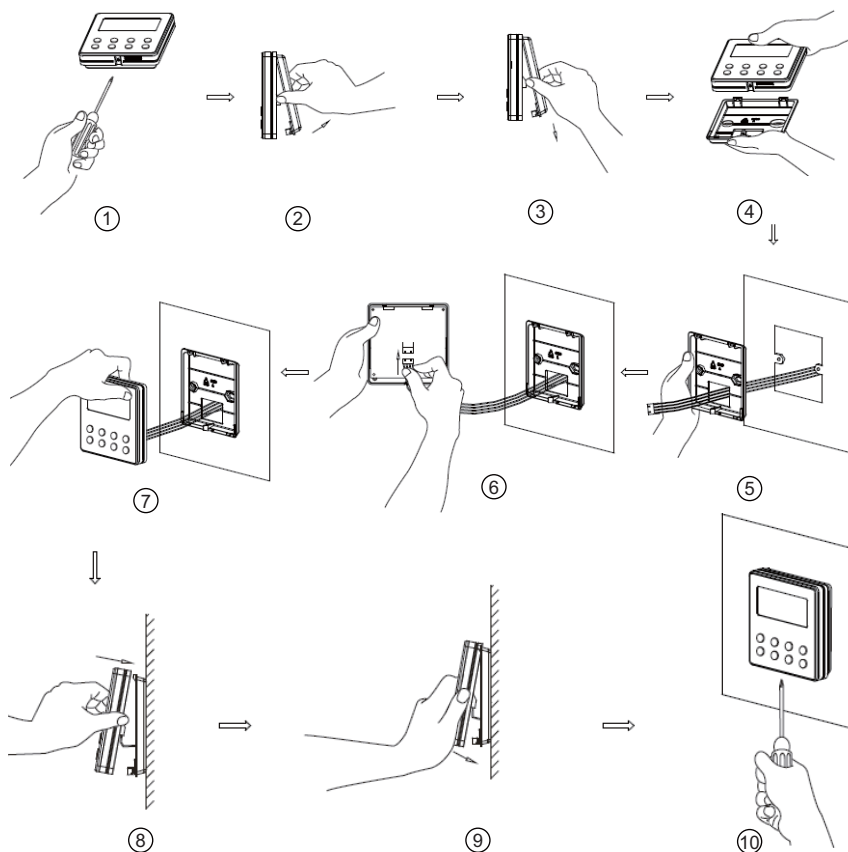


Fig.4.2

Fig.4.2 shows the installation steps of the wired controller, but there are some issues that need your attention.

1) Prior to the installation, please firstly cut off the power supply of the wire buried in the installation hole, that is, no operation is allowed with electricity during the whole installation.

2) Pull out the four-core twisted pair line from the installation holes and then let it go through the rectangular hole behind the soleplate of the wired controller.

3) Stick the soleplate of the wired controller to the wall over the installation hole and then fix it with screws M4X25.

4) Insert the four-core twisted pair line into the slot of the wired controller and then buckle the front panel and the soleplate of the wired controller together.

5) Finally, fix the front panel and the soleplate of the wired controller tightly by screws ST2.9X6.

### **⚠ CAUTION!**

Please pay special attention to the followings during the connection to avoid the malfunction of the air conditioning unit due to electromagnetic interference.

① . Separate the signal and communication lines of the wired controller from the power cord

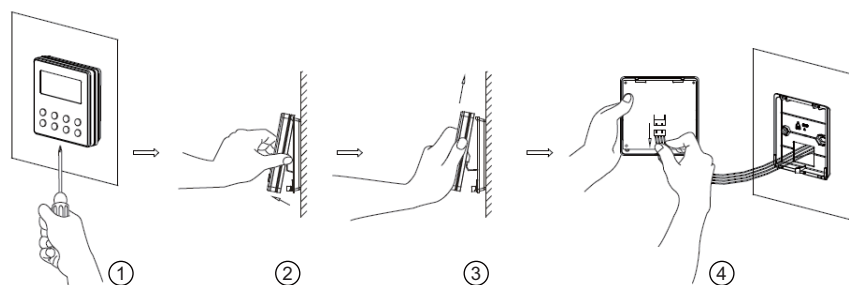


## Wired Controller (Optional)

and connection lines between the indoor and outdoor unit, with a minimum interval of 20cm, otherwise the communication of the unit will probably work abnormally.

②. If the air conditioning unit is installed where is vulnerable to electromagnetic interference, then the signal and communication lines of the wired controller must be the shielding twisted pair lines.

### 4.3 Dismantlement of the Wired Controller



## 5 Errors Display

If there is an error occurring during the operation of the system, the error code will be displayed on the LCD, as show in Fig.5.1. If multi errors occur at the same time, their codes will be displayed circularly.

Note: In event of any error, please turn off the unit and contact the professionally skilled personnel.

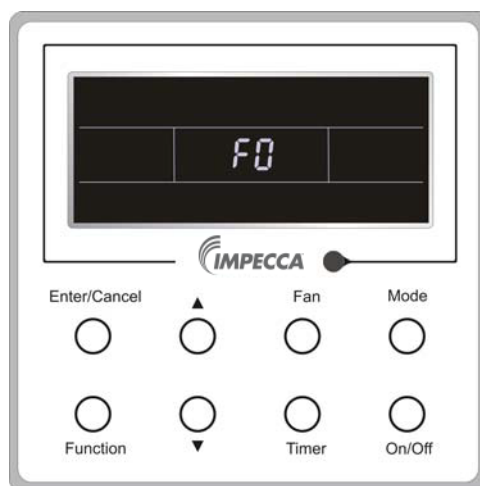


Fig.5.1

## Wired Controller (Optional)

Table 5.1 Meaning of Each Error

Error	Error Code	Error	Error Code
Return air temperature sensor open/ short circuited	F1	Drive board communication error	P6
evaporator temperature sensor open/ short circuited	F2	Compressor overheating protection	H3
Indoor unit liquid valve temperature sensor open/short circuited	b5	Indoor and outdoor units unmatched	LP
Indoor gas valve temperature sensor open/ short circuited	b7	Communication line misconnected or expansion valve error	dn
IPM temperature sensor open/short circuited	P7	Running mode conflict	E7
Outdoor ambient temperature sensor open/ short circuited	F3	Pump-down	Fo
Outdoor unit condenser mid-tube temperature sensor open/short circuited	F4	Jumper error	C5
Discharge temperature sensor open/ short circuited	F5	Forced defrosting	H1
Indoor and outdoor communication error	E6	Compressor startup failure	Lc
DC bus under-voltage protection	PL	High discharge temperature protection	E4
DC bus over-voltage protection	PH	Overload protection	E8
Compressor phase current sensing circuit error	U1	Whole unit over-current protection	E5
Compressor demagnetization protection	HE	Over phase current protection	P5
PFC protection	Hc	Compressor desynchronizing	H7
IPM Temperature Protection	P8	IPM Current protection	H5
Over-power protection	L9	Compressor phase loss/reversal protection	Ld
System charge shortage or blockage protection	F0	Frequency restricted/reduced with whole unit current protection	F8
Capacitor charging error	PU	Frequency restricted/reduced with IPM current protection	En
High pressure protection	E1	Frequency restricted/reduced with high discharge temperature	F9
Low pressure protection	E3	Frequency restricted/reduced with anti-freezing protection	FH
Compressor stalling	LE	Frequency restricted/reduced with overload protection	F6
Over-speeding	LF	Frequency restricted/reduced with IPM temperature protection	EU
Drive board temperature sensor error	PF	Indoor unit full water error	E9
AC contactor protection	P9	Anti-freezing protection	E2
Temperature drift protection	PE	AC input voltage abnormal	PP
Sensor connection protection	Pd	Whole unit current sensing circuit error	U5
DC bus voltage drop error	U3	4-way valve reversing error	U7
Outdoor fan 1 error protection	L3	Motor stalling	H6
Outdoor fan 2 error protection	LA	PG motor zero-crossing protection	U8

## CUSTOMER SUPPORT

Before contacting customer support, please see the troubleshooting guide above.


Visit our website to contact us, find answers to Frequently Asked Questions, and for other resources which may include an updated version of this user's guide.

 **WWW.IMPECCA.COM**

If you wish to contact us by phone, please be sure to have your model number and serial number ready and call us between 9:00am and 6:00pm ET, at +1 866-954-4440.

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# Owner's Manual

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Split Type Wall-mounted Air Conditioner

**Model:** ISMO-1821



Thank you for choosing our product.

For proper operation, please read and keep this manual carefully.

If you have lost the Owner's Manual, please contact the local agent or visit [www.impecca.com](http://www.impecca.com) for an electronic version.

In line with the company's policy of continual product improvement, the aesthetic and dimensional characteristics, technical data and accessories of this appliance may be changed without notice.

## CONTENTS

## GENERAL INFORMATION

GENERAL INFORMATION	Conformity And Range	1
	The Instructions Before Use	2
	Name of Parts	3
	Technical Data	4
	Outdoor Unit Working Temperature Range	4
INSTALLER	Electrical Connections	5
	Installing The Outdoor Unit	8
	Bleeding	6
	Maintenance	7
	Installation Dimension Diagram	7
	Check After Installation	8

The products in this manual may be different with the real one, according to different models, some models have display and some models without display, the position and shape of the display please refer to the real one.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.



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.

# Explanation of Symbols



Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.





Indicates important but not hazard-related information, used to indicate risk of property damage.



Indicates a hazard that would be assigned a signal word WARNING or CAUTION.

## CONFORMITY AND RANGE

## GENERAL INFORMATION

-  Please read this owner's manual carefully before operating the unit and keep it carefully for consultation. Instructions for installation and use of this product are provided by the manufacturer.
-  Only use the air conditioner as instructed in this booklet. These instructions are not intended to cover every possible condition and situation. As with any electrical household appliance, common sense and caution are therefore always recommended for installation, operation and maintenance.

## WARNING

- ★ When having a burning smell or smoke, please turn off the power supply and contact with the service center.



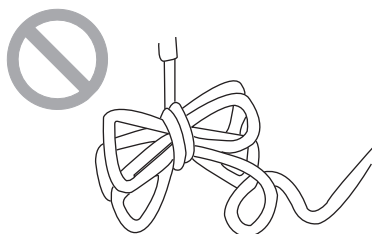
If the abnormality still exists, the unit may be damaged, and may cause electric shock or fire.

- ★ The power supply must adopt the special circuit that with air switch protection and assure it has enough capacity. The unit will be turned on or off according to your requirement automatically, please do not turn on or turn off the unit frequently, otherwise disadvantage effect may be caused to the unit.

- ★ Never cut off or damage power cables and control wires. If the power cable and signal control wire were damaged, change them by professional.



- ★ Power must adopt the special circuit to prevent fire.



Otherwise, it can cause electric shock or fire.

- ★ Disconnect the power supply if long putting the air conditioner out of use.



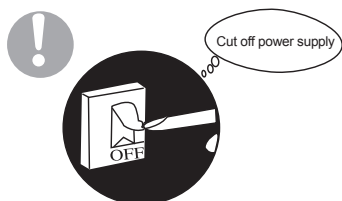
Otherwise, the accumulated dusts may cause overheating or fire.

- ★ Never damage the electric wire or use the electric wire which is not appointed.



Otherwise, it will cause overheating or fire.

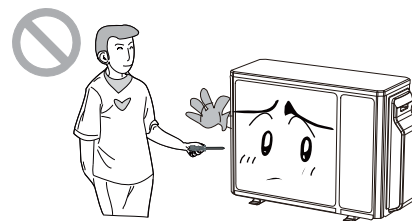
- ★ When cleaning, it is necessary to stop driving and turn off the power supply.



Otherwise, it may cause electric shock or damage.

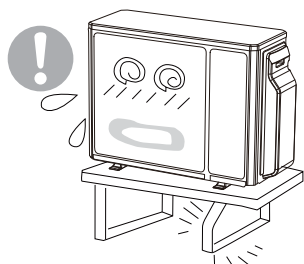
- ★ Rated voltage of this air conditioner 220-240V, 60Hz. The compressor will vibrate sharply if the voltage is too low, resulting in damage to refrigerating system. Electrical component are easy to damage if the voltage is too high.

- ★ Don't attempt to repair the air conditioner by yourself.



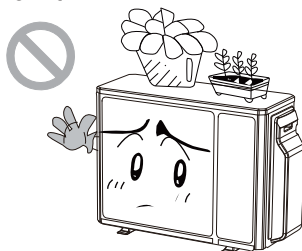
The wrong repair will lead to an electric shock or fire, so you should contact the service center to repair.

- ★ Please note whether the installed stand is firm enough or not.



If it is damaged, it may lead to the fall of the unit and cause the injury.

- ★ Don't step on the top of the outdoor unit or place something on it.



As falling off the outdoor unit can be dangerous.

- ★ Earthing: The unit must be reliably earthed. The earthing cable shall be connected to the special earthing device in the construction.





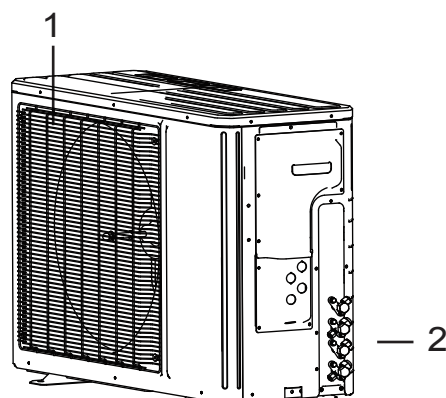
## WARNING

- Be sure to cut off the power supply before cleaning the air conditioner; otherwise electric shock might happen.
- Wetting of air conditioner may cause the risk of electric shock. Make sure not to wash your air conditioner in any case.
- Volatile liquids such as thinner or gasoline will cause damage to the appearance of air conditioner. (Only use soft dry cloth moist cloth clean the air conditioner cabinet).
- This product must not be disposed together with the domestic waste.  
This product has to be disposed at an authorized place for recycling of electrical and electronic appliances.
- The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.



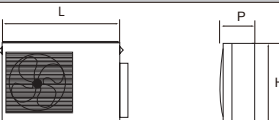
OUTDOOR UNIT	
No.	Description
1	Air outlet grille
2	Valve

Note: The above figures are only intended to a simple diagram of the appliance and may not correspond to the appearance of the units that have been purchased.



## TECHNICAL DATA

## GENERAL INFORMATION

MODE		ISMO-1821		
Electrical data				
Electricity supply		208/230V,60HZ		
Fuse or air switch		20		
Minimum power cord section		2.5		mm <sup>2</sup>
Size and clearance				
	L	890		mm
	P	362		mm
	H	700		mm

## OUTDOOR UNIT WORKING TEMPERATURE RANGE

## GENERAL INFORMATION

	OutdoorsideDB/WB( °C )
Maximum cooling	48/-
Maximum heating	27/-

1. Remove the handle at the right side plate of the outdoor unit (one screw).
2. Remove the cable clamp, connect the power connection cable with the terminal at the row of connection and fix the connection. The fitting line distributing must be consistent with the indoor unit. terminal of line bank. Wiring should meet that of indoor unit.
3. Fix power connection wire by wire clamp.
4. Ensure wire has been fixed well.
5. Install the handle.



Including an air switch with suitable capacity, please note the following table. Air switch should be included magnet buckle and heating buckle function, it can protect the circuit-short and overload. (Caution: please do not use the fuse only for protect the circuit)

Air-conditioner	Air switch capacity
ISMO-1821	25A



An all-pole disconnection switch having a contact separation of at least 3mm in all pole should be connected in fixed wiring.



Wrong wire connection may cause malfunction of some electric components. After fixing cable, ensure that leads between connection to fixed point have some space.

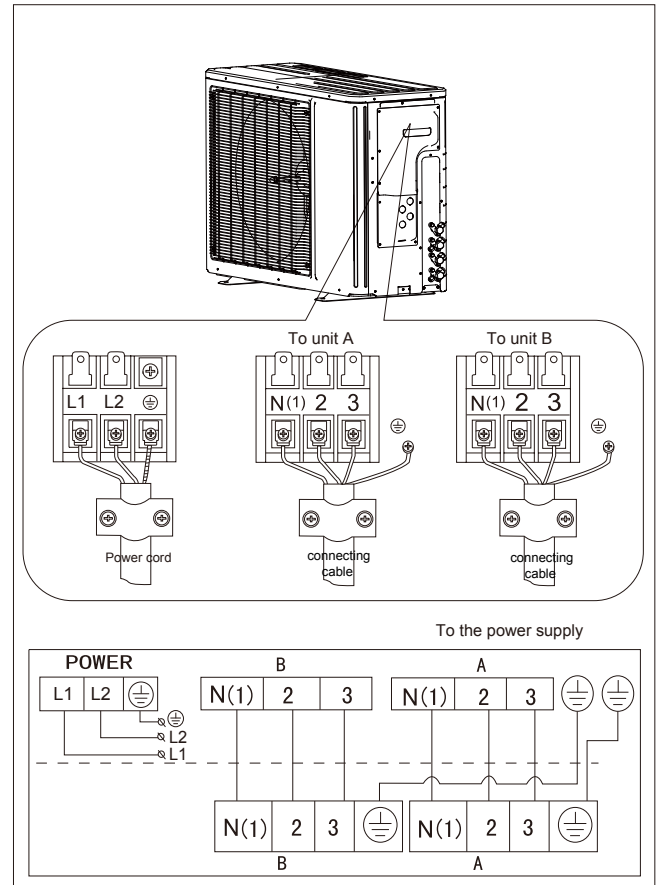


The connection pipes and the connecting wirings of the unit A and unit B must be corresponding to each other respective.



The appliance shall be installed in accordance with national wiring regulations.

Note: the above figures are only intended to be a simple diagram of the appliance and may not correspond to the appearance of the units that have been purchased.



## Location

- Use bolts to secure the unit to a flat, solid floor. When mounting the unit on a wall or the roof, make sure the support is firmly secured so that it cannot move in the event of intense vibrations or a strong wind.

- Do not install the outdoor unit in pits or air vents

## Installing the pipes

- Use suitable connecting pipes and equipment for the refrigerant R410A.

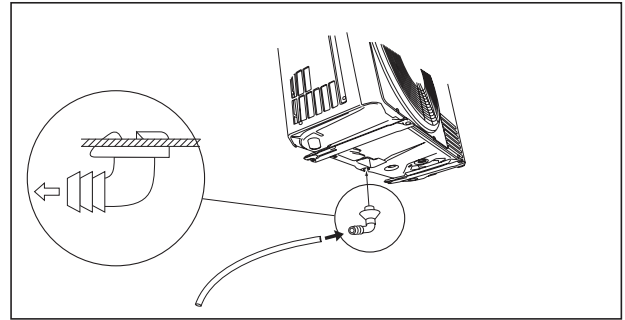
Model(m)	1821x2
Max. connection pipe length	20
Max. connection pipe length (Simple one indoor unit)	10

- The refrigerant pipes must not exceed the maximum heights 5m(1821K).
- Wrap all the refrigerant pipes and joints.
- Tighten the connections using two wrenches working in opposite directions.

**Caution: Installation Must be Performed in Accordance with the NEC/CEC by Authorized Personnel Only.**

## Install the drain fitting and the drain hose (for model with heat pump only)

Condensation is produced and flows from the outdoor unit when the appliance is operating in the heating mode. In order not to disturb neighbours and to respect the environment, install a drain fitting and a drain hose to channel the condensate water. Install the drain fitting and rubber washer on the outdoor unit chassis and connect a drain hose to it as shown in the figure.



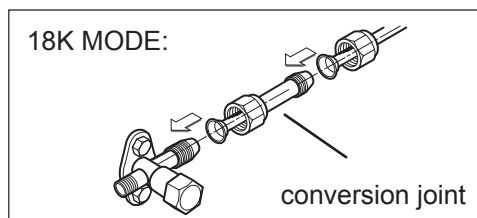
## BLEEDING

Humid air left inside the refrigerant circuit can cause compressor malfunction. After having connected the indoor and outdoor units, bleed the air and humidity from the refrigerant circuit using a vacuum pump.

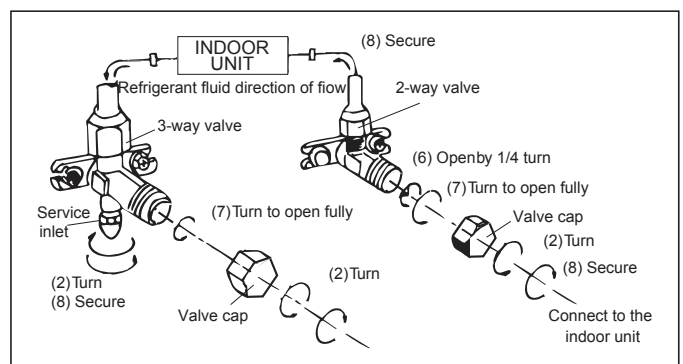
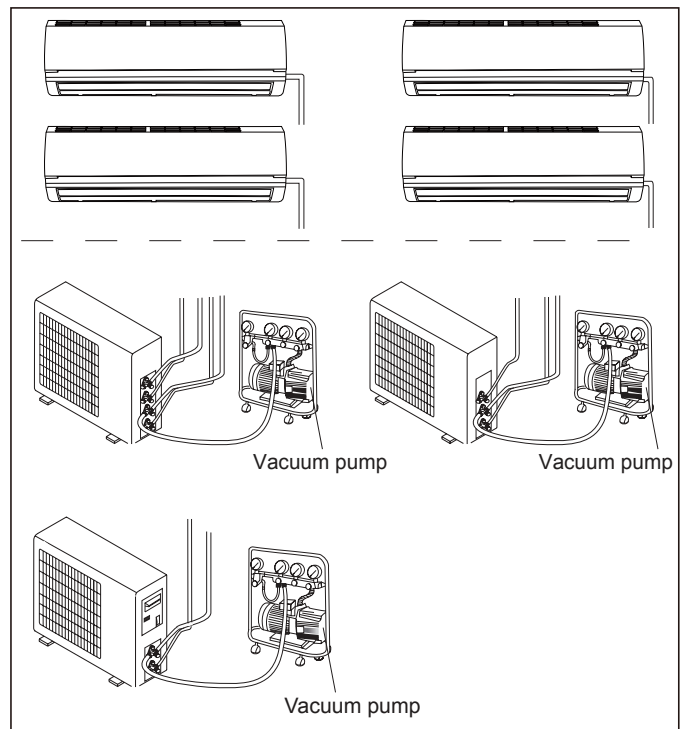
- Unscrew and remove the caps from the 2-way and 3-way valves.
- Unscrew and remove the cap from the service valve.
- Connect the vacuum pump hose to the service valve.
- Operate the vacuum pump for 10-15 minutes until an absolute vacuum of 10 mm Hg has been reached.
- With the vacuum pump still in operation, close the low-pressure knob on the vacuum pump coupling. Stop the vacuum pump.
- Open the 2-way valve by 1/4 turn and then close it after 10 seconds. Check all the joints for leaks using liquid soap or an electronic leak device.
- Turn the body of the 2-way and 3-way valves. Disconnect the vacuum pump hose.
- Replace and tighten all the caps on the valves.

Diameter (mm)	Twisting moment (N.m)
Φ6	15-20
Φ9.52	35-40
Φ16	60-65
Φ12	45-50
Φ19	70-75

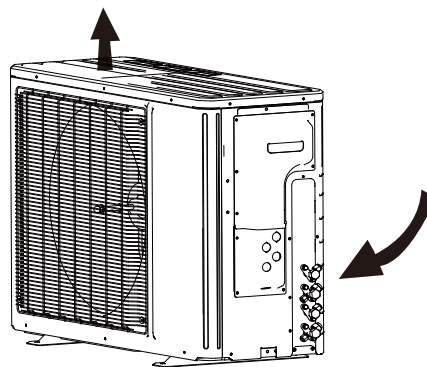
18K unit need to be installed the indoor unit



## INSTALLER

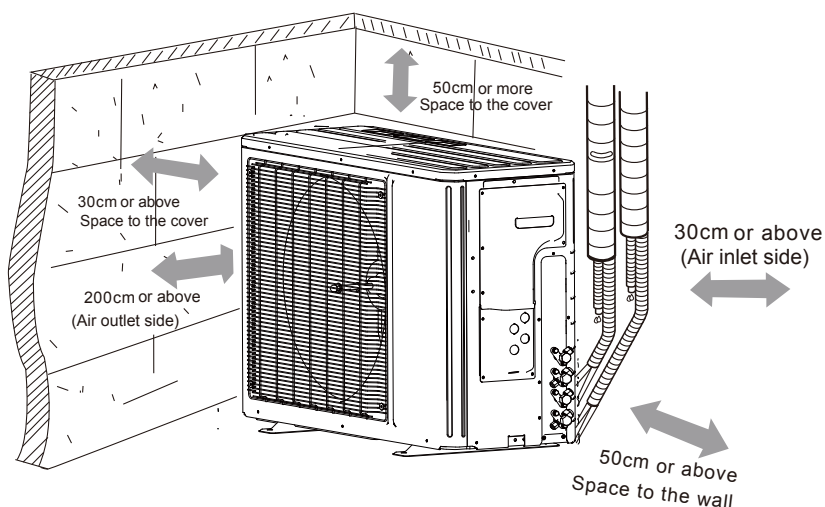


- ⚠ Use suitable instruments for the refrigerant R410A.
- Do not use any other refrigerant than R410A.
- ⚠ Do not use mineral oils to clean the unit.



## INSTALLATION DIMENSION DIAGRAM

- ⚠ The installation must be done by trained and qualified service personnel with reliability according to this manual.
- ⚠ Contact service center before installation to avoid the malfunction due to unprofessional installation.
- ⚠ When picking up and moving the units, you must be guided by trained and qualified person.
- ⚠ Ensure that the recommended space is left around the appliance.



Check Items	Problems Owing to Improper Installation
Is the installation reliable?	The unit may drop, vibrate or make noises
Has the gas leakage been checked?	May cause unsatisfactory cooling (heating) effect
Is the thermal insulation of the unit sufficient?	May cause condensation and water dropping
Is the drainage smooth?	May cause condensation and water dropping
Does the power supply voltage accord with the rated voltage specified on the nameplate?	The unit may bread down or the components may be burned out
Are the lines and pipelines correctly installed?	The unit may bread down or the components may be burned out
Has the unit been safely grounded?	Risk of electrical leakage
Are the models of lines in conformity with requirements?	The unit may bread down or the components may be burned out
Are there any obstacles near the air inlet and outlet of the indoor and outdoor units?	The unit may bread down or the components may be burned out
Have the length of refrigerating pipe and refrigerant charge amount been recorded?	It is not easy to decide the charge amount of refrigerant.

## CUSTOMER SUPPORT

Before contacting customer support, please see the troubleshooting guide above.


Visit our website to contact us, find answers to Frequently Asked Questions, and for other resources which may include an updated version of this user's guide.

 **WWW.IMPECCA.COM**

If you wish to contact us by phone, please be sure to have your model number and serial number ready and call us between 9:00am and 6:00pm ET, at +1 866-954-4440.

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