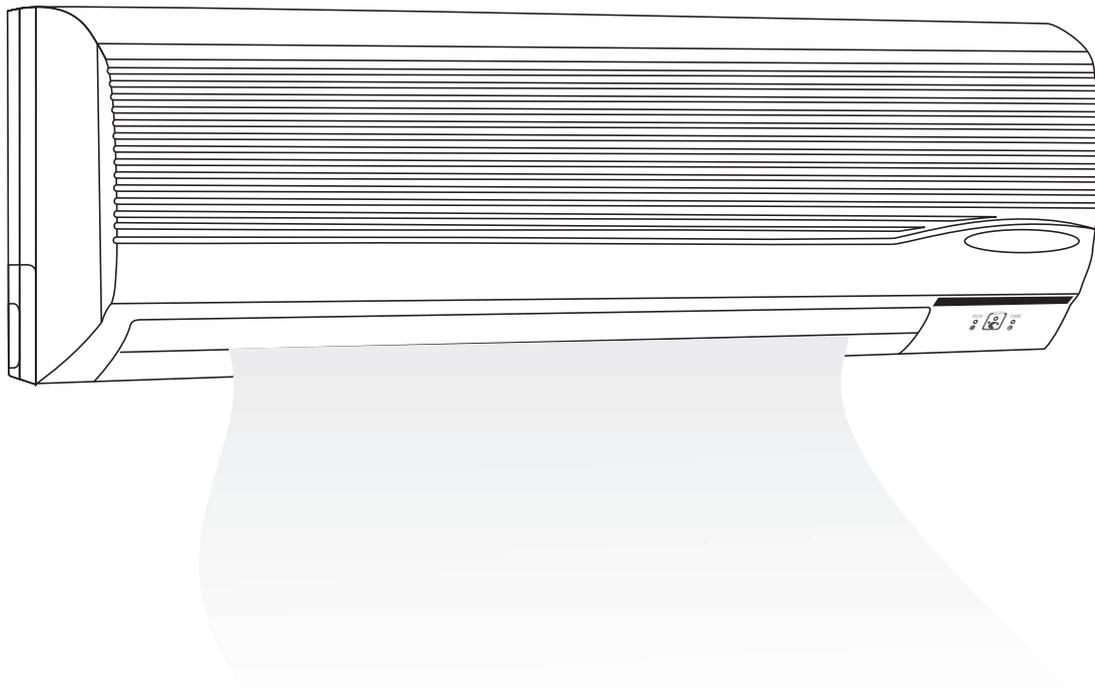


# SPLIT AIR CONDITIONER WALL MOUNTED TYPE OWNER'S MANUAL

AUS-12CR53CA2 • AUS-12HR53CA2



- Thank you for choosing an Air Conditioner. Please read this OWNER'S MANUAL carefully prior to using, keep it for further reference.
- Contact our local specially engaged service center, they will install as per your requests as soon as possible. Customer shall not install by his own or other unqualified people. We shall not be held responsible for any services or costs if units are not installed by qualified technicians.

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*P*

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# SAFETY AWARENESS

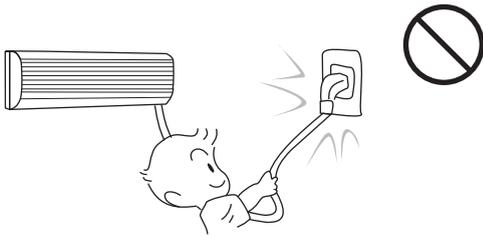


- Read and understand thoroughly this safety awareness before use.  
The items indicated here are very important safety precautions, which must be followed.

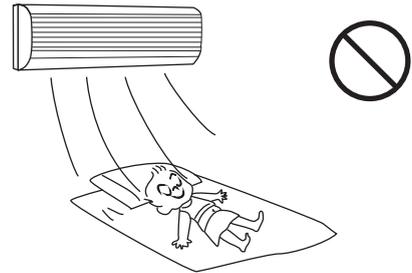
	Must connect grounding line		Absolutely no
	Must unplug plug		Must be done

## WARNING

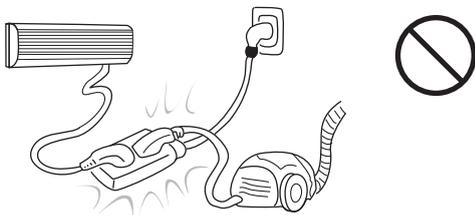
- Do not pull power cable. Hold plug to unplug when removing power, or part of the line in the power cable may break and cause fire.



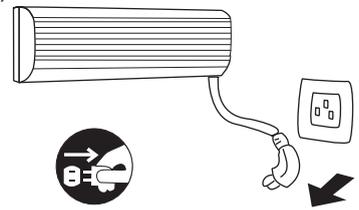
- Do not let cool air blow directly at you for long time. Possible health problems may occur.



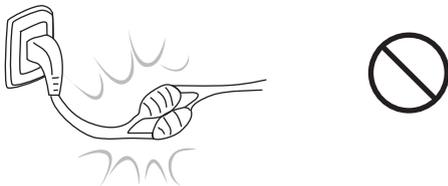
- Do not connect at the middle of the power cable or extend it. Do not use multi-hole sockets. Possible fire electric shock may occur for poor connection, bad insulation and excessive allowable current.



- Do not plug power cable when in operation. (Spark may appear, and cause fire.) Pull the power plug out from the outlet or cut off the power supply when you don't use the air conditioner for a long time. (Accumulated dirt will cause fire.)



- Do not damage power cable, or do joining work. By putting stuffs on the power cable, heating it or do joining works, a possible short circuit may cause fire and electric shock.



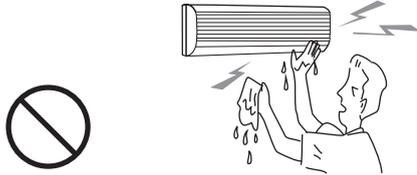
- Provide a power outlet to be used exclusively for each unit, and a power supply disconnect and circuit breaker and current fuse protector should be provided in the exclusive line.



# SAFETY AWARENESS

## ⚠ WARNING

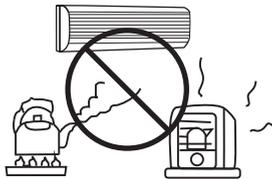
- Clean the air conditioner with a soft and dry cloth. Do not use chemical solvent, insecticide, Inflammable-spraying material or which damage the appearance of air conditioner for cleaning.



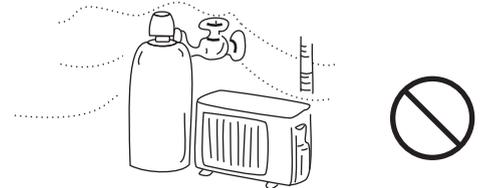
- The appliance shall be installed in accordance with national wiring regulations. The appliance must not be installed in the laundry. The appliance must be installed 2.3m above the floor. The appliance must be positioned so that the plug is accessible.



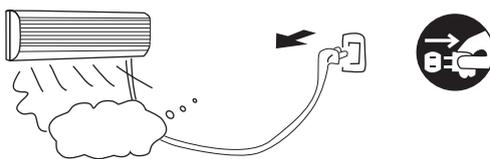
- Do not put burning appliances at the place where can be blown directly by the air, insufficient burning may occur.



- Do not install the air conditioner where leak flammable gas. If there is electrical leakage accidentally from air conditioner, it is easy to cause fire or explosion, as is very dangerous.



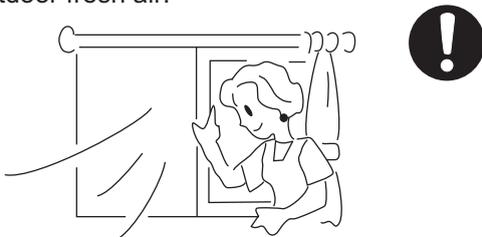
- Stop operation and unplug power cable immediately if abnormality is found (burned smell etc).



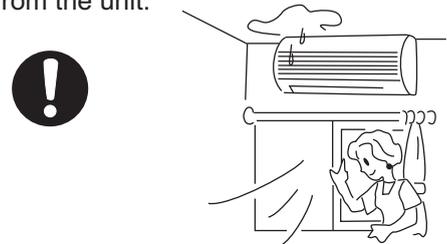
- Do not use for special purposes. Do not use to store precision equipment, food, painting etc, which are required humidity and temperature, for their quality may be affected.



- Close doors and windows (better using curtains) while operating air conditioner for a long time, if room air is quite turbid, you should open a door and window for a moment to get some outdoor fresh air.



- Do not operate air conditioner at COOL/DRY mode for a long time under high humidity (above 80%), if door/window is open or under high humidity condition, condensation may drop from the unit.

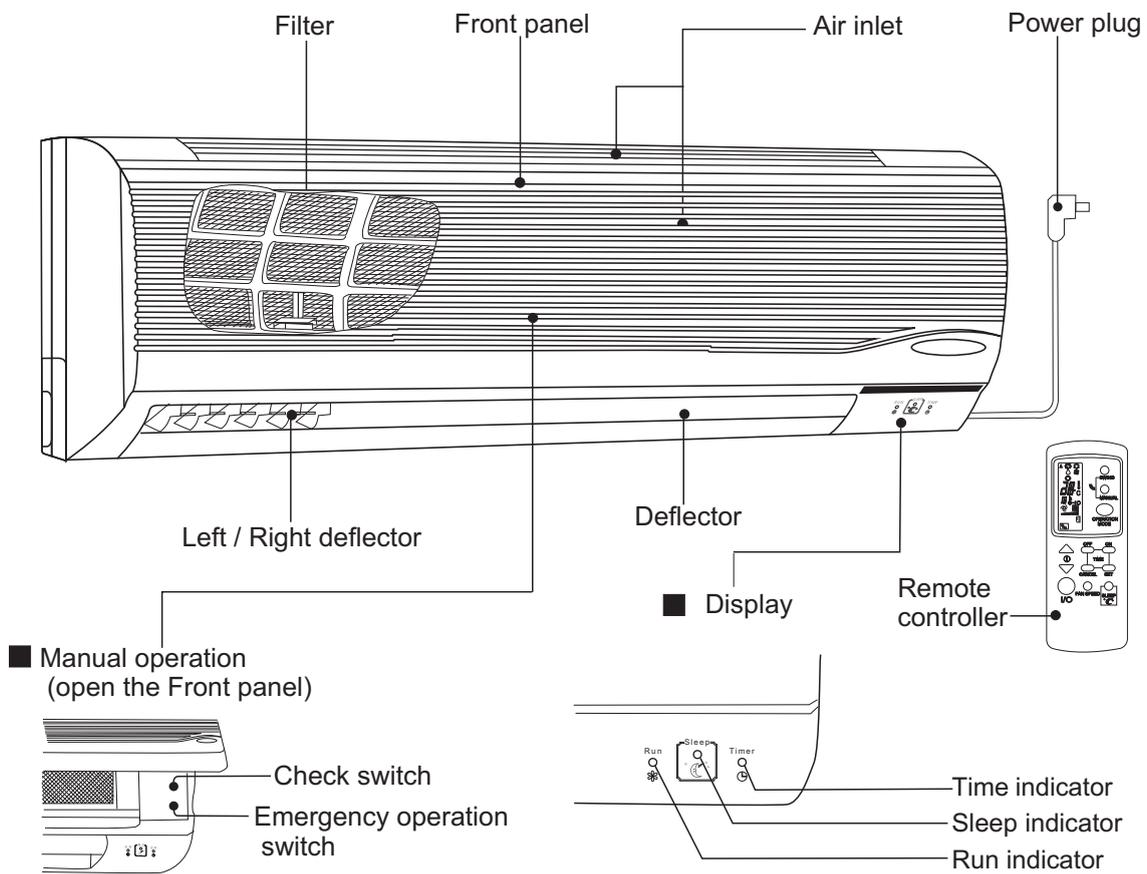


- Do not install, service or move the Air Conditioner on your own. Improper process can cause fire, electric shock, the falling unit can injure people or water leakage. Contact our air conditioner specially engaged service center.

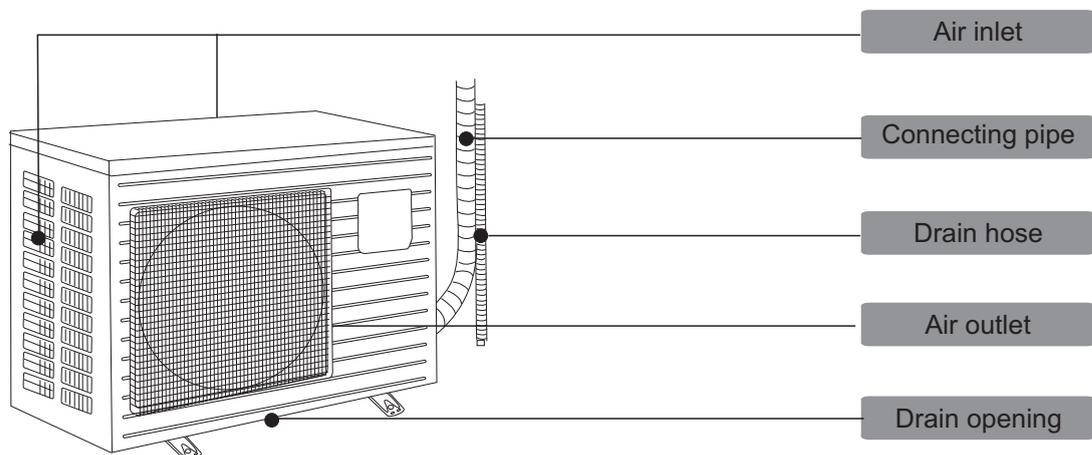


# NAME OF PARTS

## ◆ INDOOR UNIT

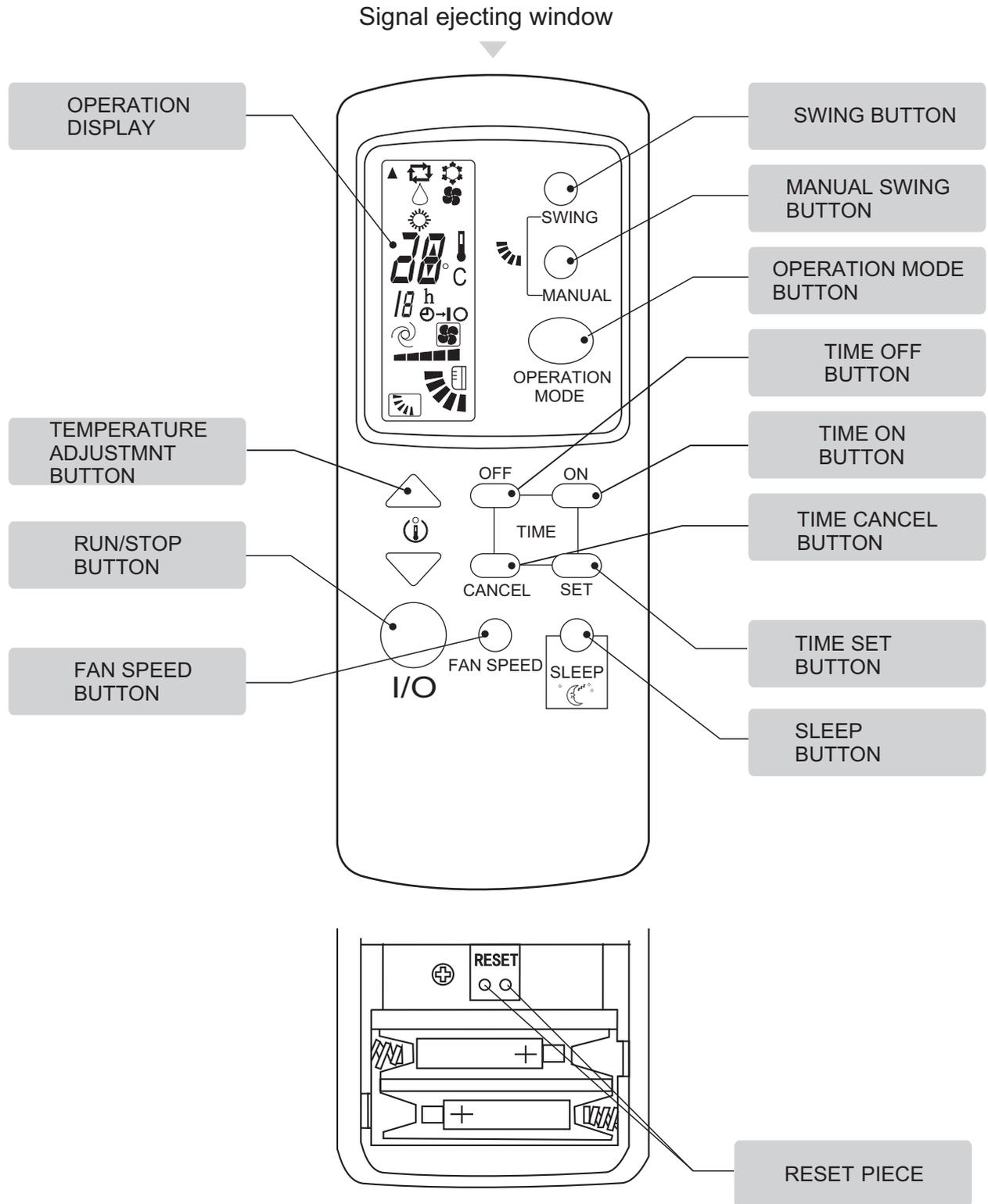


## ◆ OUTDOOR UNIT



# NAME OF PARTS

## ◆ REMOTE CONTROLLER



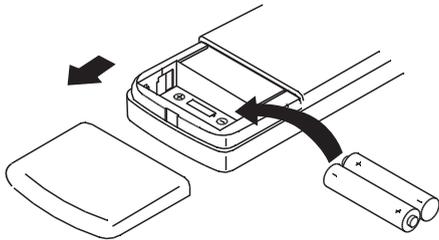
**NOTICE**

cool only type hasn't HEAT mode

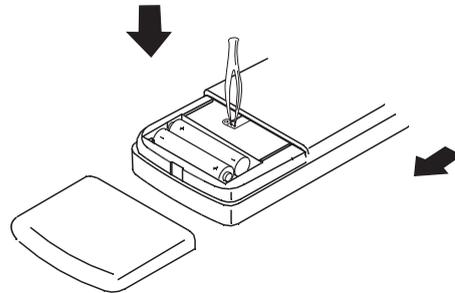
# REMOTE CONTROLLER PREPARATION



**1** Open back cover, put in batteries.



**2** Short RESET piece with forceps. ( Short two RESET piece after changing the batteries. )



## NOTICE

● If the remote controller can't be operated normally, short two RESET piece, it will operate normally.



● The signal can be reached within six metres directly in front of indoor unit.



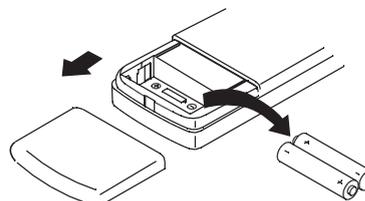
● Handle remote controller carefully. Do not drop, throw and get wetted. Avoid malfunction.



● When the button is pressed, indoor unit will beep once or twice, indicating the receiving of the signal. If no beep is heard, press again.



● Remove batteries if Remote controller has not been used for a long time.



# OPERATION OF AIR CONDITIONER

## ■ Operation procedure-Control under the Remote controller

### 1 Run/Stop

- Press I/O button, start operation, and stop when repressed.

### 2 Temperature adjustment

- Press TEMPERATURE ADJUSTMENT button, decreases 1°C by press “▼” button once, and increase 1°C by press “▲” button once.
- Temperature change will display in the remote controller's display.

### 3 Fan speed adjustment

- Press FAN SPEED button, change the fan speed of indoor unit in the order of ■ ( low ) → ■■■ ( medium ) → ■■■■ ( high ) → @ ( auto ).

### 4 Sleep selection

- Press SLEEP button, set sleep operation, and cancel when repressed.

### 5 Air flow direction adjustment

- Change up/down air flow direction

1 Press MANUAL SWING button, the deflector move a specific angle. Change the deflector of indoor unit follow the order of ▸ (1) → ↙ (2) → ↘ (3) → ↖ (4) → ▲ (5) (Fig.2)

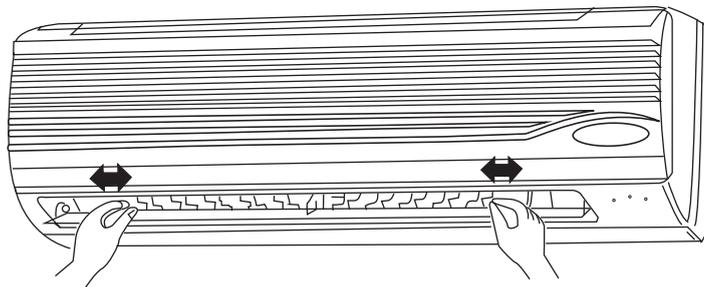
**NOTICE** In DRY or COOL mode, air blows downward in ↖ (4), ▲ (5) for one hour, it changes to horizontal blowing automatically to prevent dripping.

# OPERATION OF AIR CONDITIONER

2 Press SWING button, the deflector start to operate.

- Change right/left air flow direction

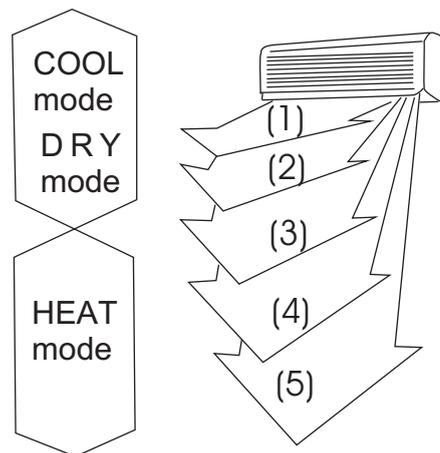
Manually swing Left/Right deflector, to change right/left air flow direction. Complete adjustment before operation, if adjusted during operation, the auto swinging deflector may pinch your fingers. (Fig. 1)



( Fig.1 )

## ADVICE

- ◆ In DRY or COOL mode, advise to make the Fan speed with @ (auto), air blows downward in (1). In HEAT mode, advise to make the Fan speed with @ (auto), air blows downward in (4).
- ◆ Control with remote controller to adjust up/down air flow direction, avoid turning deflector with hand to avoid injury.



( Fig.2 )

# OPERATION OF AIR CONDITIONER

## 6 Operation mode adjustment

■ Cool only type has not HEAT mode .

### 1 AUTO mode

When started, operation mode will turn into COOL or DRY or HEAT mode as per room temperature, if operation stops for two hours, it restarts in the same mode set as before operation was stopped. Once operation mode is set, it will not be influenced even if room temperature has changed. Press MANUAL SWING button or SWING button to change up/down air flow direction.

Per Room Temperature (RT)	Cooling only type		Heat pump type	
	Mode	Per Setting Temperature	Mode	Per Setting Temperature
above 26°C	Cool	24°C	Cool	24°C
25-26°C		RT-2		RT-2
23-25°C	Dry	RT-2	Dry	RT-2
below 23°C			Heat	26°C

### 2 COOL mode

Press MANUAL SWING button or SWING button to change up/down air flow direction. Press FAN SPEED button to change the fan speed of indoor unit. Press TEMPERATURE ADJUSTMENT button to change the setting temperature.

### 3 DRY mode

Press MANUAL SWING button or SWING button to change up/down air flow direction. Press FAN SPEED button to change the fan speed of indoor unit.

### 4 FAN mode

Press MANUAL SWING button or SWING button to change up/down air flow direction. Press FAN SPEED button to change the fan speed of indoor unit.

### 5 HEAT mode(heat pump type)

Press MANUAL SWING button or SWING button to change up/down air flow direction. Press FAN SPEED button to change the fan speed of indoor unit. Press TEMPERATURE ADJUSTMENT button to change the setting temperature.

#### ADVICE

- HEAT mode: Healthy warmth lies in the difference with outside temperature! The setting temperature for heating shall not be too different from outside temperature. Though it varies with area, set temperature to between 20°C- 24°C, Heating effect becomes inferior when ambient temperature is below 5°C.

# OPERATION OF AIR CONDITIONER

## 7 Timer operation

### ● Timer operation ON

1 Press button  when air conditioner stops , “ | ” of “ ⊖→| ” flicker on the Remote Controller display.

Press button  when air conditioner operates , “ ○ ” of “ ⊖→○ ” flicker on the Remote Controller display.

2 Press button  or  to enter time setting .press button  or  one time, the timer will increase 1 hour, the time will display on remote controller .

3 Press button  to fix setting time . “ | ” or “ ○ ” will be stop flicker on the Remote Controller display.

### ● Timer operation OFF

If you want timer operation goes off, press button  Until set time and “ ⊖→○ ” or “ ⊖→| ” will disappear on the remote controller display.

## NOTICE

- 1.If power sets off, time must be set again, otherwise, Timer operation is not right.
- 2.If the air conditioner has been in time on or time off, but you want change the time, you must cancel the primary condition then can set new time condition, otherwise, error will incur.
- 3.After having chosen the time mode, if you press the  once incautiously, the setting time will count time anew automatically as primary setting time, and the display time will not change. So if you want air conditioner operate as primary setting time, you must set time anew .

## Operation procedure-Control under the Emergency operation switch

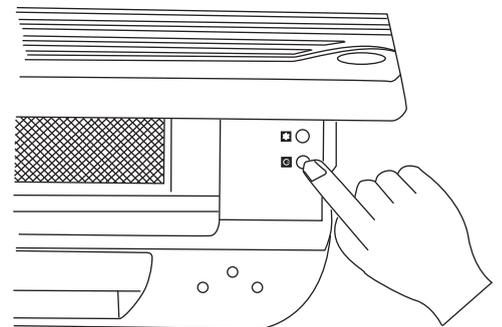
- In case the batteries in the remote controller are wore out, or remote controller is at fault, use emergency operation switch.

(Cool only type)

Every time the switch is pressed, it changes in sequence of COOL → STOP.

(Heat pump type)

Every time the switch is pressed, it changes in sequence of COOL → HEAT → STOP.



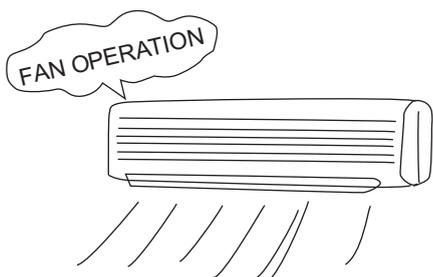
Emergency run operation procedure as the following:

Setting temperature	Fan speed	Deflector
24 °C	High	Swing

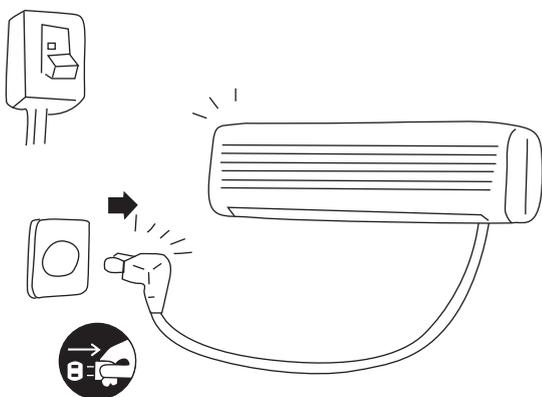
# SERVICE AND MAINTENANCE

## Air Conditioner no use for a long time.

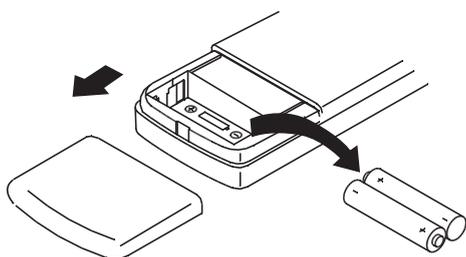
- 1 Start fan only for 3-4 hours to completely dry the inside of the indoor unit.
  - Set COOL mode or HEAT mode, and select the highest setting temperature, then fan turns.



- 2 Turn off air conditioner, unplug the power plug, otherwise, the accumulated dirt may cause fire.

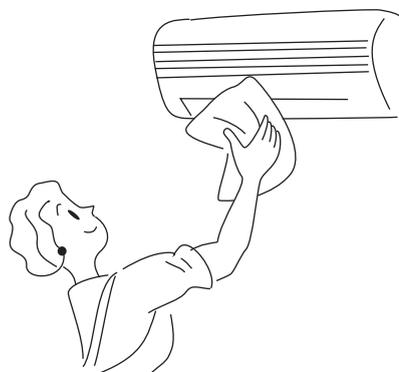


- 3 Take the batteries out of the remote controller.

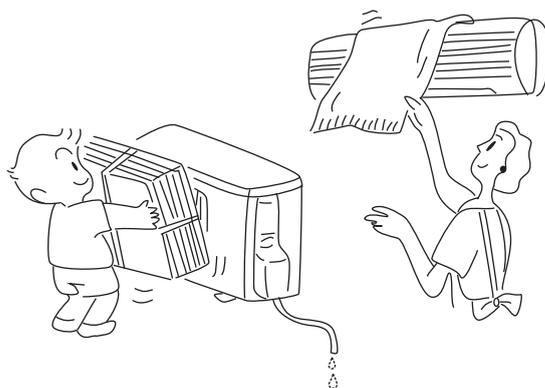


## Want to use the Air Conditioner

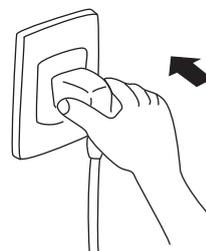
- 1 Clean filters and replace them to original position. Clean indoor unit with soft clothe.
  - Do not use gasoline, benzene, thinner, grinding powder, detergent, insecticide etc. to clean units as they can hurt the units.



- 2 Inlets and outlets of indoor and outdoor units shall not be covered/blocked.



- 3 Ground wire shall not be loose. Put in batteries, and plug the power plug.



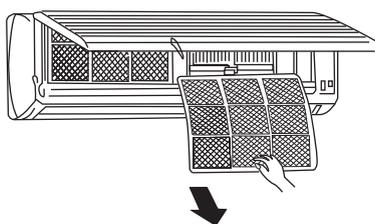
# SERVICE AND MAINTENANCE

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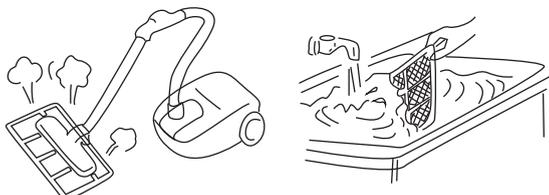
■ Deodorization filter, Air cleaner, Filters must be cleaned termly. Open front panel only after air conditioner stops completely.

Filters should be cleaned once every two weeks.

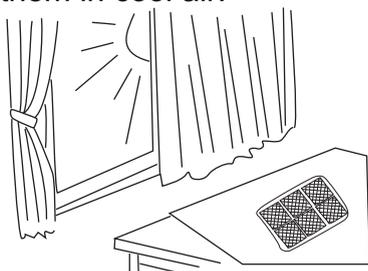
**1** Take out filters.



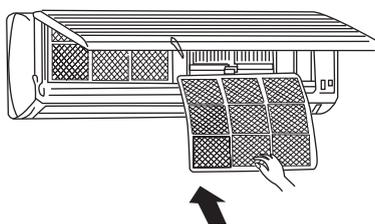
**2** Clean filters with a vacuum cleaner or by typing them gently. ( If they are very dirty, wash them in warm water below 45°C dissolved with neutral scouring agent.)



**3** Clean filters with clean water, then dry them in cool air.

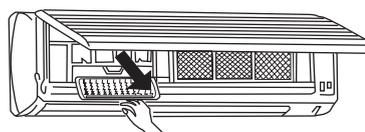


**4** Insert them at original position, then push down and close front panel.

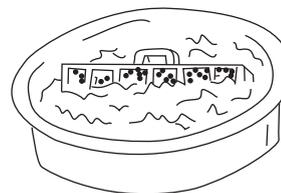


Clean deodorization filters and air cleaner.

**1** Take out filters first, then take out deodorization filter and air cleaner.



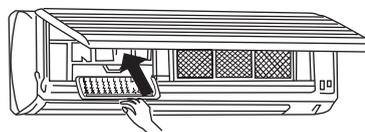
**2** Clean deodorization filter, air cleaner with warm water below 45 °C dissolved with neutral scouring agent.



**3** Clean filters with clean water, then dry them in cool air.

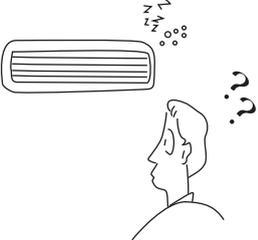
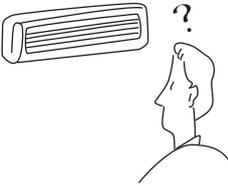


**4** Insert them at original position, then push down and close front panel.



# FAULT CONFIRMATION AND ANALYSIS

■ If problems can not be corrected after doing below items, please stop the air conditioner, contact our air conditioner specially engaged service centre nearest to you to get help.

Is there a fault ?	Fault analysis
<p>Air conditioner does not operate at all.</p> 	<ul style="list-style-type: none"> <li>■ Does power fail ? Is plug out ? Does power fuse or switch off ? Is voltage higher than 253 V or lower than 207V?</li> <li>■ Is time set suitable?</li> </ul>
<p>Remote controller is not available and does not display.</p> 	<ul style="list-style-type: none"> <li>■ If disturbed abnormally or operation modes changed too frequently, sometimes the remote controller would lose function. Please plug out and plug in again, it may be ok.</li> <li>■ If remote controller displays unclear or displays all symbols, please change batteries.</li> </ul>
<p>It is not running after I/O button is pressed.</p> 	<ul style="list-style-type: none"> <li>■ This is a way to protect compressor as per microprocessor instructions. Please wait 3 minutes.</li> </ul>
<p>Cooling and heating efficiency is not good.</p> 	<ul style="list-style-type: none"> <li>■ Does temperature set suitably ?</li> <li>■ Are filters dirty?</li> <li>■ Are inlets and outlets of outdoor unit blocked?</li> <li>■ Does sleep function start during daytime?</li> <li>■ Does indoor fan speed set low ?</li> <li>■ Are doors and windows closed ?</li> </ul>
<p>Air will not immediately blow out at the start of HEAT mode.</p> 	<ul style="list-style-type: none"> <li>■ It is processing information, air will only blow out when sufficiently warm. Please wait.</li> </ul>

# FAULT CONFIRMATION AND ANALYSIS

## Is there a fault ?

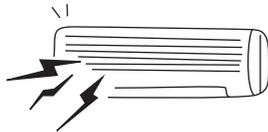
## Fault analysis

Indoor unit fan stops for about 10 minutes during heating.



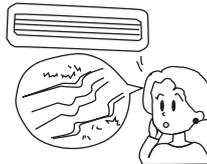
- It is defrosting of the outdoor unit coil. It should complete this process in about 10 minutes at most. ( It freezes when outdoor temperature is low and humidity is high. )

Issues cracking sounds



- The friction sounds caused by expansion and contraction of front panel resulting from temperature changes.

You can hear the sound of running water



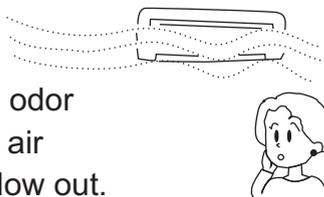
- It is the sound of expanding refrigerant inside the air conditioner.
- Sound of accumulated water dropping on the heat-exchanger.
- Melting sounds of frost on heat-exchanger.

Indoor unit issue “poosh” sound and click sound.



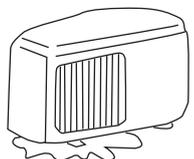
- Click sound of fan or compressor when switching ON/OFF.
- “poosh” sound of refrigerant inside the air conditioner.

There is odd odor in the air that air conditioner blow out.



- Air conditioner recycles should have absorbed odors from wall, carpet, furniture and cloth closet out into the air.

Outdoor unit leaks water.



- During cooling, connecting pipe or pipe connector is cooled to form condensates.
- During heating or defrosting, melting water and water vapor will run out.
- During heating, water on heat-exchanger will drop.

# PERFORMANCE PARAMETERS

Model	AUS-11HR53CA(G)2		AUS-18HR53CA(G)2		AUS-22HR53CA(G)2	
	indoor	outdoor	indoor	outdoor	indoor	outdoor
Function	heat pump type		heat pump type		heat pump type	
Power	220-240V~, 50Hz		220-240V~, 50Hz		220-240V~, 50Hz	
Rated cooling/heating capacity (W)	3300/4000		5100/5500		6500/7400	
Standard input power(W)	1300(cool)/1450(heat)		2100(cool)/2300(heat)		2650(cool)/2850(heat)	
Standard input current(A)	5.8(cool)/6.4(heat)		9.8(cool)/10.6(heat)		13(cool)/14(heat)	
Air flow volume(m <sup>3</sup> /h)	450		750		1000	
Dehumidifying capacity (L/h)	1.6		2.5		3.2	
Protection class	I					
Water-proof	IP20(Indoor) IP24(Outdoor)					
Climate type	T1					
Refrigerant (R407C) charge amount(g)	1220		2000		2600	
Noise dB(A)	40	50	43	56	50	58
Net weight (Kg)	10	37	14.5	46	15	65
Dimension(mm)WXHxD	800x290x183	830x500x310	1020x315x178	860x690x370	1080x330x220	870x850x365

Model	AUS-11CR53CA(G)2		AUS-18CR53CA(G)2		AUS-22CR53CA(G)2	
	indoor	outdoor	indoor	outdoor	indoor	outdoor
Function	Cool only type		Cool only type		Cool only type	
Power	220-240V~, 50Hz		220-240V~, 50Hz		220-240V~, 50Hz	
Rated cooling capacity (W)	3300		5100		6500	
Standard input power(W)	1300		2100		2600	
Standard input current(A)	5.8		9.8		13	
Air flow volume(m <sup>3</sup> /h)	450		750		1000	
Dehumidifying capacity (L/h)	1.6		2.5		3.2	
Protection class	I					
Water-proof	IP20(Indoor) IP24(Outdoor)					
Climate type	T1					
Refrigerant (R407C) charge amount(g)	1200		2000		2550	
Noise dB(A)	39	50	43	56	50	58
Net weight (Kg)	10	35	14.5	45	15	63
Dimension(mm)WXHxD	800x290x183	830x500x310	1020x315x178	860x690x370	1080x330x220	850x870x365

## NOTICE

1 The indicated noise value is from laboratories test before leaving factory.

2 The rated cooling capacity and rated heating capacity value is tested under below conditions

cooling operation	indoor	27 °C(DB)	19 °C(WB)	outdoor	35 °C(DB)	24 °C(WB)
heating operation	indoor	20 °C(DB)	15 °C(WB)	outdoor	7 °C(DB)	6 °C(WB)

3 All above should be changed without notice. There are latest and accurate specifications on the name plate of your air conditioner.

4 Working temperature range:

	Maximum cooling	Minimum cooling	Maximum heating	Minimum heating
Indoor side DB/WB(°C)	32/23	21/15	27/--	20/--
Outdoor side DB/WB(°C)	43/26	21/15	24/18	-5/-6

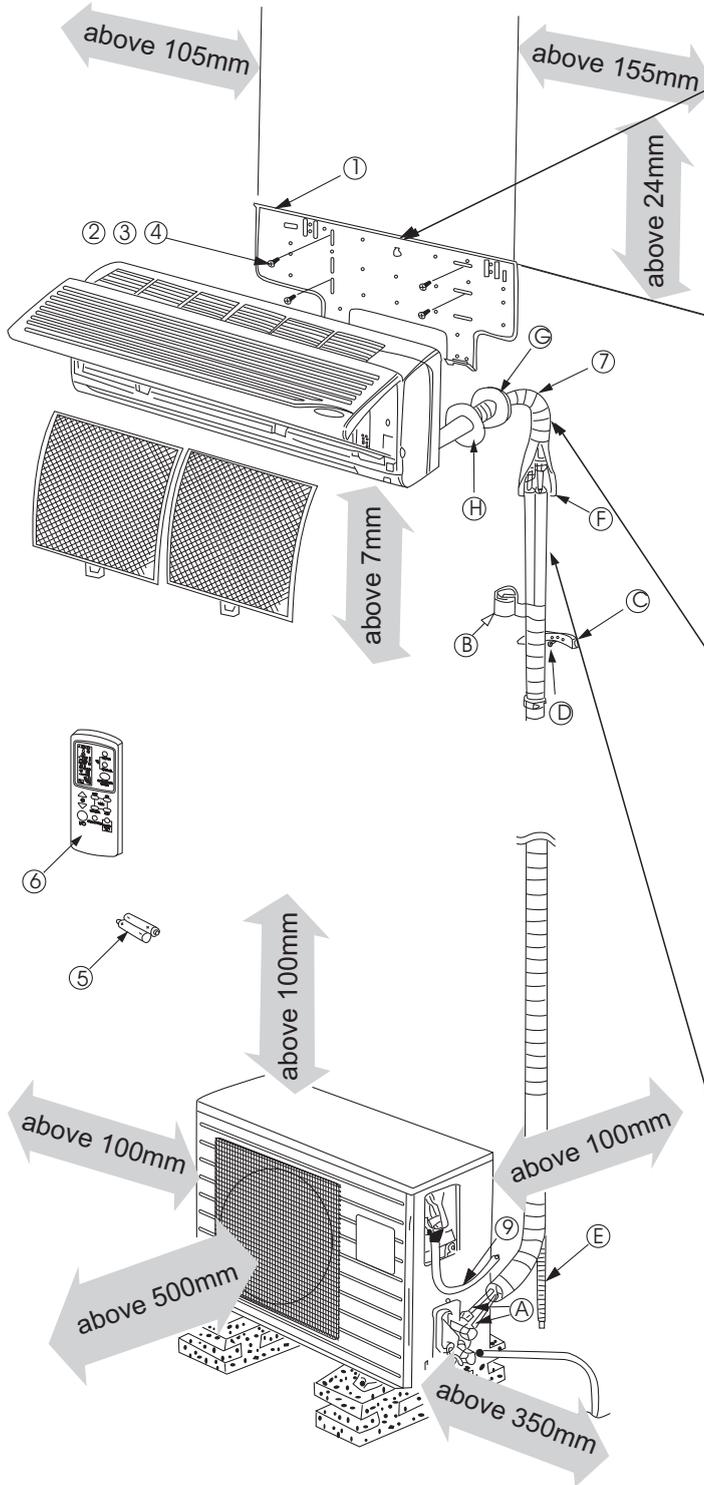
5 If air conditioner working voltage exceeds 230V±10%.it operates abnormally.

6 Wiring diagram of air conditioner(indoor unit/outdoor unit)are attached to the unit.

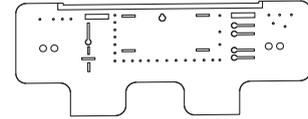
7 If the power cable or connecting cable is damaged ,it must be replaced by the manufacturer or its service agent or similar qualified person in order to avoid a hazard.

# INSTALLATION SKETCH

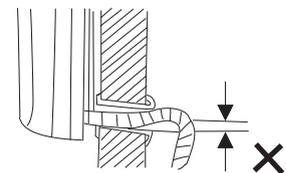
## ● Installation sketch



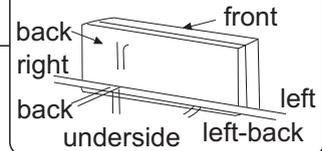
Confirm installation place with the marker of indoor unit installation board.



Notice: do not put the drain hose high.



Configuring pipe can be installed to back, right, underside, or left-back side.



Cover connecting pipe with heat-insulating material.



the thickness of heat-insulating material is 8mm.

Put the wood block with the thickness above 20mm between the wall and connecting pipe, or cover connecting pipe with bonding tape of 7 or 8 layers, when install connecting pipe on the wall that is metallic net or thin armor plate.

# INSTALLATION ACCESSORIES

Before installation, inspect the following accessories:

Indoor unit accessories		Quantity	Installation accessories		Quantity
1	Mounting plate	1	A	Connecting pipe	1
2	Tapping screw ST4×25	5	B	Bonding tape	1
3	Expansion rubber plug	5	C	Clamp	3
4	Expansion bolt	2	D	Cement nail	5
5	Battery	2	E	Drain hose	1
6	Remote controller	1	F	Opening cap	1
7	Felt	1	G	Wall-hole cover	1
8	Adiabatic underlay	1	H	Indoor wall-hole cover	1
9	connecting cable	1	I	putty	1
10	Drain joint (Supplied by customer)	1	J	Airproof oil	1
			K	Shockproof rubber cushion (supplied by customer)	4

## Installation Instructions

### 1 Location of indoor unit

- Cooled or heated air should be blown to every part of the room.
- Maximum height between indoor/outdoor units is 5m.
- Mount on firm wall to avoid any vibration.
- Avoid direct sunshine.
- Easy to drain condensate water.
- Do not make any interference caused by the fluorescent lamp to the remote controller's signal.
- Minimum distance between air conditioner and home appliance( TV/ Radio etc. ) is 1m.

### 2 Location of outdoor unit

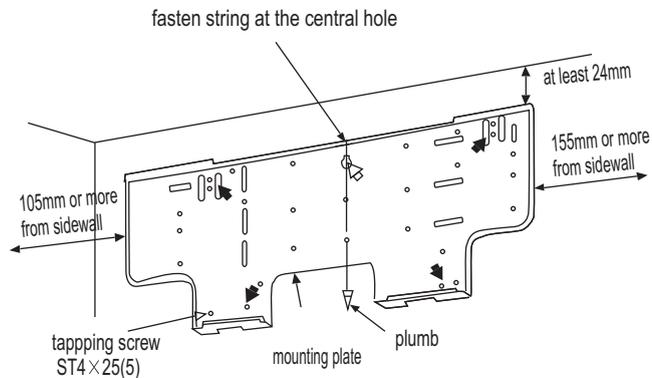
- Airflow can not be blocked.
- Good ventilation, low dust, avoids rain or direct sunshine.
- Operation noise or air blowing out will not affect neighbors' comfort.
- Firmly mounted on rack, which will reduce noise and vibration.
- Avoid places close to inflammable gas leakage.
- Unit must be mounted firmly when installed high up.
- Not to be affected by strong wind.

# INSTALLATION

## INDOOR UNIT

### 1 Secure the mounting plate

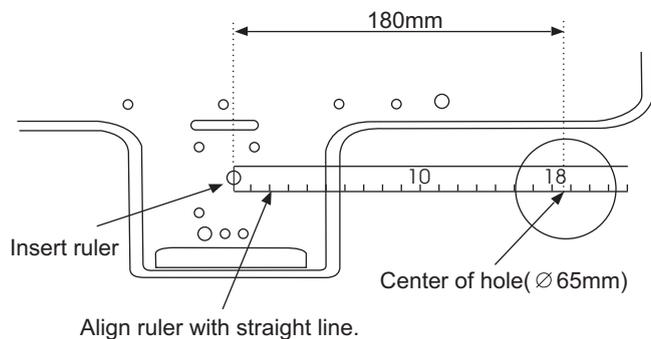
- The mounting plate should be attached to the structural part of wall (post etc.).



#### NOTICE

- The holes at solid arrow position must be secured to avoid the shake of mounting plate.
- When the expansion bolts are used, two holes ( 11×20 or 11×26 ) that the distance between them is 450mm should be adopted.

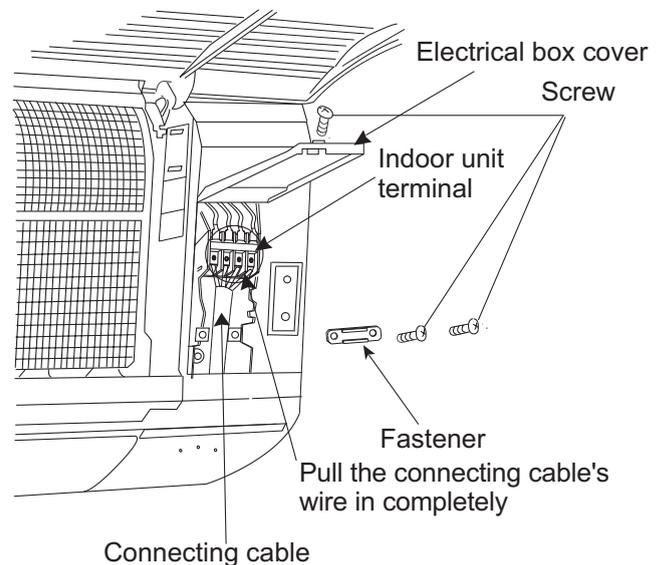
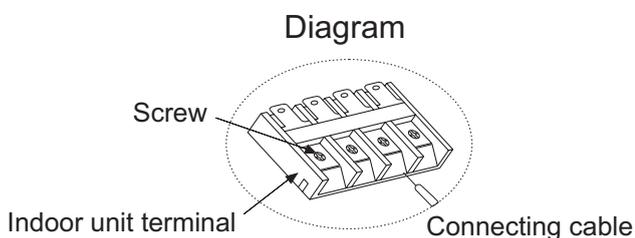
### 2 Drill on the wall



- Confirm the position of holes, and drill holes of  $\varnothing 65\text{mm}$  on the wall.

### 3 Wiring

- Open the front panel;
- Remove the screw from electrical box cover, pull the electrical box cover away from the unit and set aside.
- Remove the screw from fastener, pull the fastener away from the unit and set aside.
- Connect the cable.
- Replace the fastener and electrical box cover.



# INSTALLATION

## 4 Installation drain hose

### 1 NOTE:

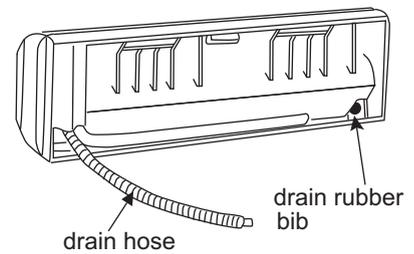
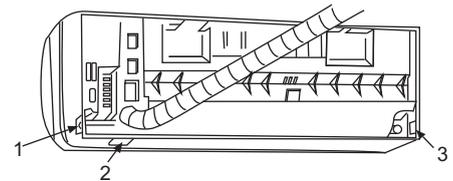
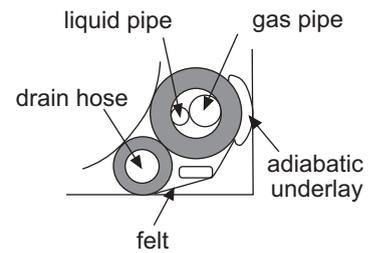
- The drain hose must be arranged beneath the copper pipe.
- The drain hose must not be hunched or bended.
- Do not wrap the drain hose by pulling it.
- When the drain hose must be through the house, it should be wrapped by the special heat insulated materials.
- The copper pipe and the drain hose must be wrapped by felt strip. Heat insulated pad should be used in the place that the pipe contact the wall.

### 2 ROUTE OF PIPE

- If pipe came out of the right side of the indoor unit, cut part "1" on the unit;
- If pipe came out of the lower-right side of the indoor unit, cut part "2" on the unit;
- If pipe came out of the left side of the indoor unit, cut part "3" on the unit.

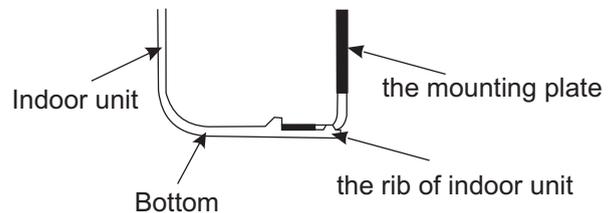
### 3 REFIT OF DRAIN HOSE

- If pipe comes out of the left side of the indoor unit, the drain hose must be refit, otherwise water leakage may occur.
- Refit methods: Interchange the position of drain hose and drain rubber bib, the right diagram is un-refit position.
- Clearance is not allowed after refit, it would lead to water leak.



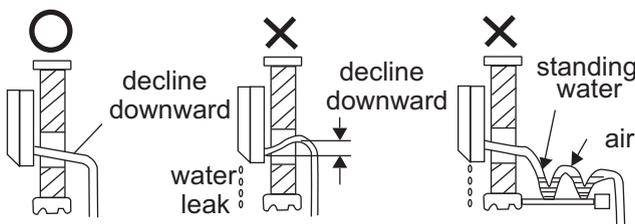
## 5 Installation indoor unit

- Let pipe go through the wall hole and attach the indoor unit to the mounting plate. (Locate the rib of indoor unit in the hole of the mounting plate.)



## 6 Arrangement of drain hose

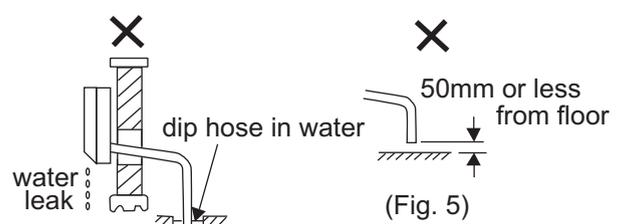
- To eject the condensate water easily, the drain hose should be declined downward. The arrangement in diagram 2-5 is wrong.



(Fig. 1)

(Fig. 2)

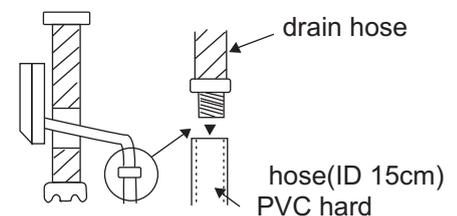
(Fig. 3)



(Fig. 4)

(Fig. 5)

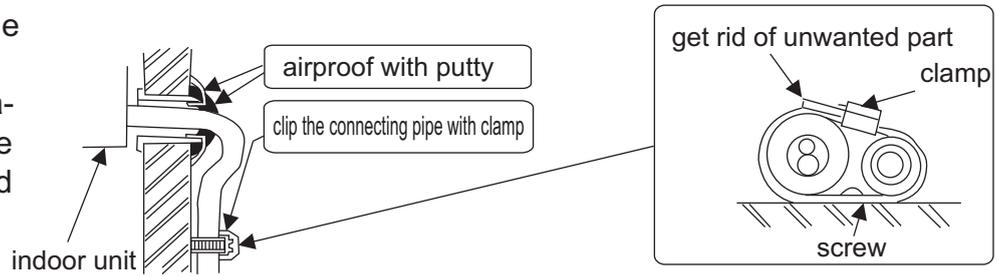
- If the drain hose connected with the indoor unit is short, it may be extended by the hose in the accessory box.
- When the drain hose must be through the house, it should be wrapped by the special heat insulated materials.



# INSTALLATION

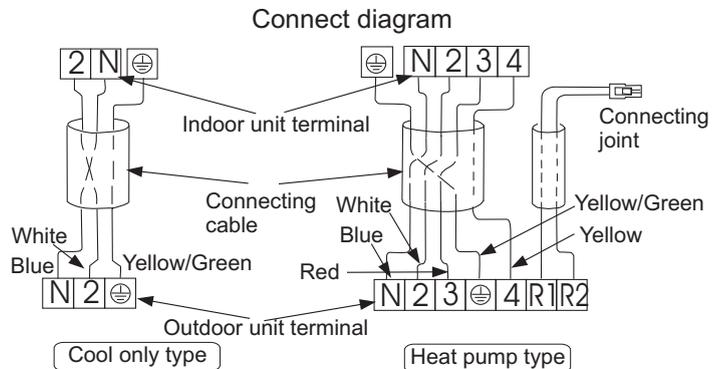
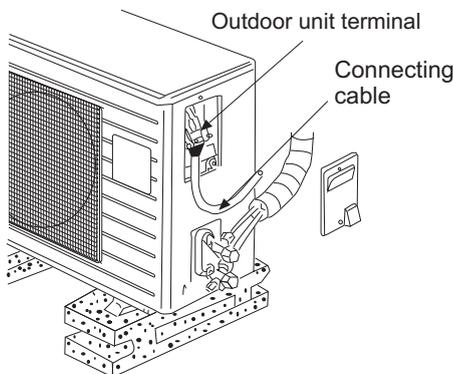
## 7 Seal of wall hole and fasten of pipe

- Use putty to seal the wall hole.
- Use clamp ( pipe fastener ) to secure the pipe at specified position.



## OUTDOOR UNIT

### 1 Wiring

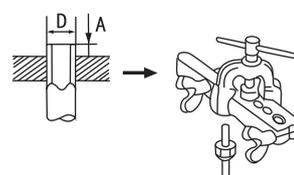
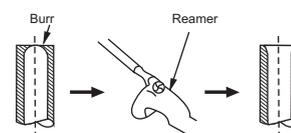
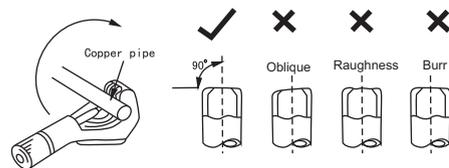


### WARNING

- The connecting cables must be clipped together.
- Special cable must be used to connect indoor unit and outdoor unit. It should be ensured that the terminals are not influenced by external force. Poor connect may cause fire.
- The electric box cover must be mounted and secured in position, otherwise fire or electrical shock may occur because of dust or moisture.
- AUS-09C(H)R53CA(G)2 can be connected only to a supplied with system impedance no more than  $0.376 \Omega$ , and AUS-12C(H)R53CA(G)2 no more than  $0.213 \Omega$ . In case necessary, please consult your supply authority for system impedance information.

### 2 Flaring the pipe end

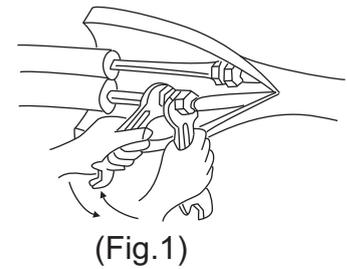
- Cut the pipe using a pipe cutter.
- Remove burrs at the tip of the pipe cut.
- Insert a flare nut into the pipe and modify flare.



Outer diameter(mm)	A (mm)
6.35	2.0--2.5
9.52	3.0--3.5
12.7	3.5--4.0

### 3 Discharge the air procedure

- Connect assembly pipe to the appropriate valve on the indoor unit and outdoor unit and tighten the flare nut(as fig.1).
- Screw down the nut of connecting pipe with wrench(the torque as follow diagram )

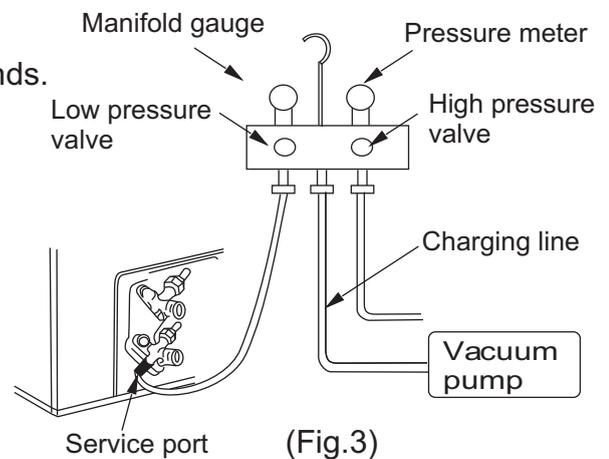
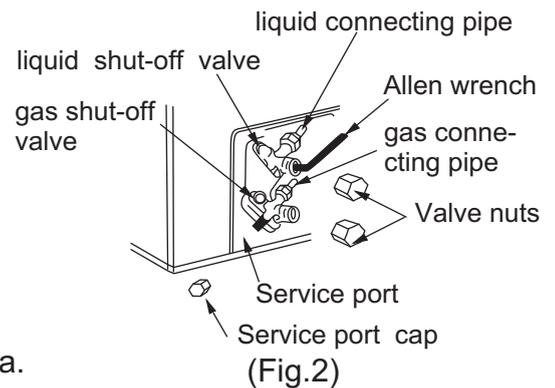


#### NOTICE

- 1.The number of bent position of the pipe in the indoor unit should not exceed 10.
- 2.The number of bent position of the pipe in the indoor unit and the outdoor unit should not exceed 15.
3. The radius of bent position should more than 10cm.

PIPE	DIAMETER OF PIPE	TORQUE(N · m)
Liquid pipe	6.35mm ( 1/4" )	13.7---17.6
Gas pipe	9.52mm ( 3/8" )	34.3---41.2
Gas pipe	12.7mm ( 1/2" )	49.0---56.4

- Connect charging hose(low pressure) of manifold gauge to the service port of gas shut-off valve.
- Open the valve of the low pressure and close high pressure valve of manifold gauge.
- Purge the air from the system using the vacuum pump until its pressure(low pressure side) is below 12Pa.
- Close the low pressure valve and remove the charging hose from service port .
- Use Allen wrench to turn the valve cork of liquid side for 90° in counter-clockwise, and close it after 10 seconds. Use soapy water to check for gas leakage especially from service port and flare.
- Fully open gas shut-off valve and liquid shut-off valve.
- Mount the valve nuts and service port cap to shut-off valve and service port .



#### NOTICE

Do not let air leakage into the system during discharge air procedure.

# INSTALLATION

## 4

### Add refrigerant

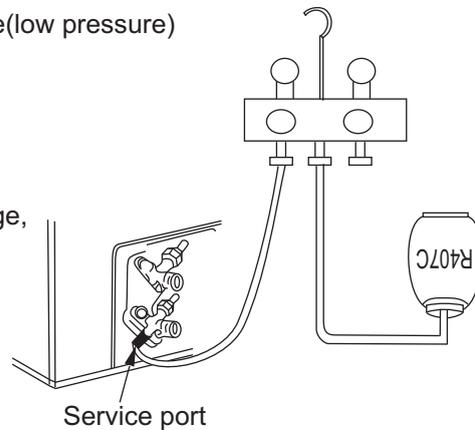
- If the connecting pipe is longer than 7 meters, add refrigerant as needed. (Cool only type) add amount  $A = (L - 7m) \times 15g/m$ ; (Heat pump type) add amount  $A = (L - 7m) \times 50g/m$ . (A: add refrigerant amount, L: the length of connecting pipe)

the length of connecting pipe (m)	7	8	9	10
(Cool only type)add amount (g)	0	15	30	45
(Heat pump type)add amount (g)	0	50	100	150

- Discharge air as foregoing method.
- Turn the gas shut-off valve to close, connect charging hose(low pressure) to the service valve, then open gas shut-off valve again.
- Connect refrigerant bottle to charging hose, convert it, then fill liquid refrigerant as foregoing table.
- Close the gas shut-off valve, disconnect the manifold gauge, and open gas shut-off valve again.
- Tighten nuts and cap of each valve.

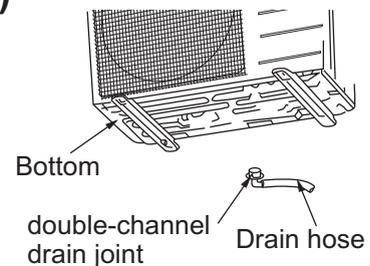
#### NOTICE

- Do not let gas refrigerant into the system.



### ■ Install the drain joint(only for heat pump type)

- Install the double-channel drain joint in the hole of outdoor unit's bottom, then connect drain hose and joint.



### ■ Test

- Having accomplished air installation and leak test, test operation must be done. Before test operation, wiring safety inspect must be carefully done.

- Test operation procedure:
- Only can check switch be done, and remote controller can not.
  - 1.Connects system with power plug, and open front panel.
  - 2.Press check switch, then system operates as test.
  - 3.If the indicate lamps light first, go out in succession, the system is normal, otherwise, there has lamp flashing indicating that system has wrong. Please check system for once.

