CASSETTE TYPE AIR CONDITIONER

BEFORE USE

OPERATION AND INSTALLATION INSTRUCTIONS

USE AND MAINTANENCE

Model:

30K 30000BTU(Cooling Only)

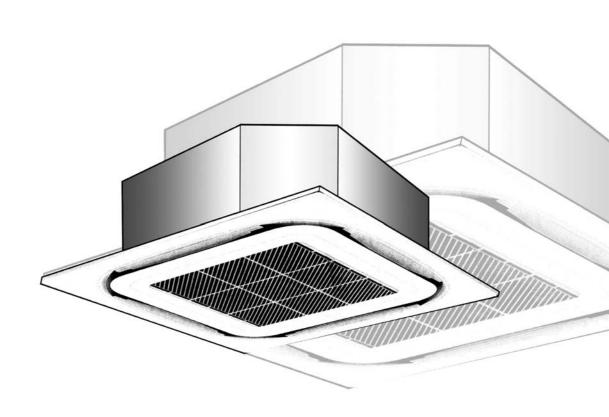
36K 36000BTU(Cooling Only)

42K 42000BTU(Cooling Only)

48K 48000BTU(Cooling Only)

60K 60000BTU(Cooling Only)

INSTALLATION



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BEFORE USE

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PLEASE READ THE OPERATION AND INSTALLATION INSTRUCTIONS CAREFULLY BEFORE YOU USE THE UNIT, AND KEEP IT PROPERLY.	

SAFETY PRECAUTIONS

For your safety, please read the following contents carefully before you use the unit.

Safety sign

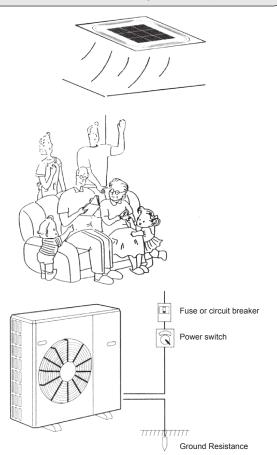
- Prohibition
- Control according with indicator
- Must joint the ground wire

Please don't install repair and move the unit by yourself.

Please ask the professional installation man to repair and move the air conditioner, otherwise maybe caused the fire electric shock or drop.

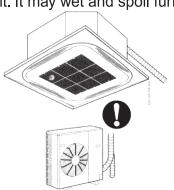


Install the unit according to the stipulation

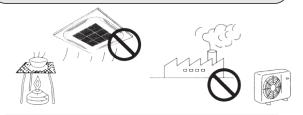


Drain water should be fully drained.

If the drainage is incomplete, water may drop from the unit. It may wet and spoil furniture.



Please don't install the unit where flammable gas could leak or atrocious



Caution before trial operation

Check all the panel, fan guard and other protection sets whether installed correctly or not; If touch the running, heater or high voltage part, maybe caused damage.



Never insert stick or foreign object in air inlet or outlet. Touching rotating or fans can be hazardous.



Please insure the air outlet and inlet without obstruction.





SAFETY PRECAUTIONS

Please don't press the remote controller button with spiculate object.



Please stop running the unit and switch off As soon as the abnormity appears(burnt smell)



The unit can't be wet;
Touch it by wet hand is prohibited.



Allow fresh air into room occasionally.



Do not apply an insecticide or flammable spray.



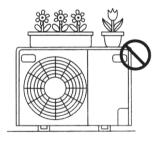
Don't place propagation at the location of direct air flow.



Do not put a pet or house plant where will be exposed to direct airflow.



Don't step on the outdoor unit and don't put anything on it.

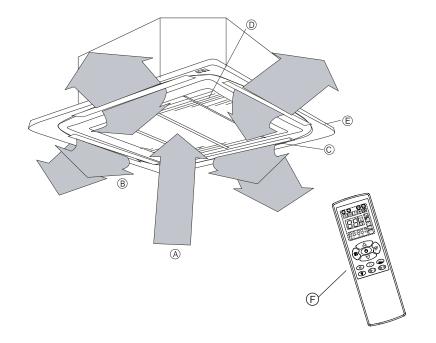


Don't deal with the unit by yourself.

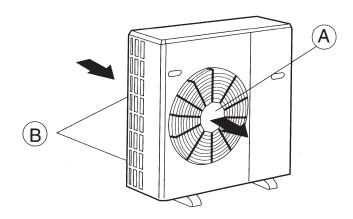


NAME OF EACH PART

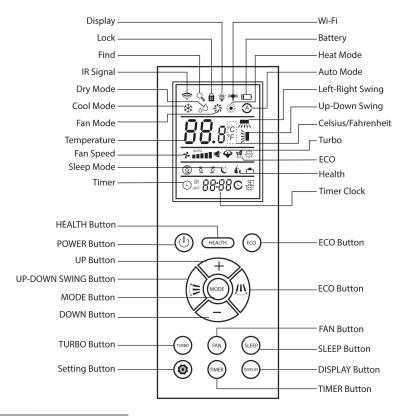
- 1. Indoor unit
- A. Air inlet
- B. 4-way air outlet
- C. Adjustment vanes
- D. Air filter
- E. Panel
- F. Remote controller



- 2.Outdoor unit
- A. Air outlet
- B. Air inlet



USE METHOD OF REMOTE CONTROLLER



Remote controller's Clock setting

- 1.Remove the back lid and install two batteries.
- 2.Pressing clock setting button

The first time to install batteries, all LCD displaying, then LCD shows power indictor and the clock shows: [[]]:[[]].

3. Clock function setting button

When LCD shows [1]: [1] at fist time, press the clock setting button(press timer on button and timer off button at the same time), $\Box \Box \Box \Box \Box \Box \Box \Box \Box \Box \Box$ start to twinkle, then setting the clock. Press "up" button to setting hour, and press "down" button to set Min, it is finish setting When LCD display twinkles five times or press "up" and "down" at the same time.

(It is the same way to revised time in the days after)

Operate automatically

When the operation starts according to the room tempe -rature, the operation mode is automatically select among cooling, Dry . However , when operation start again within two hours after the operation is stopped, the same operation mode before is is stopped is selected. The room temperature will not be influenced once the operate is selected.

Room temp when starts	Running Mode
Approximately 25 C or higher	Cool
21℃~25℃	Dry(Fan)

To start operation

- 1. The signal transmitting section of the remote controll -er should be pointed at the receiving section.
- 2.Press the ON TOPE to start air-conditioner.
 3.To select the Auto mode, each time the button is pres -sed, the operation $\stackrel{\text{\tiny{MODE}}}{\text{\tiny{MODE}}}$ is changed in sequence from.

To stop operation

Press the button.

While too warm or cool

When about 3-15 min passes, after operation start, if you feel slightly warm or cool.

- 1.Press the button to raise the temperature, One press raises the temperature by about 1°C.
- 2. Press the \(\operago \) button to lower the temperature, One press lowers the temperature by about 1°C

USE METHOD OF REMOTE CONTROLLER

To Select The "COOL", "DRY", "FAN", "ON/OFF" Mode

- 1.Press ^{ON/OFF} to start machine.
 2.Press ^{MODE} to select running mode. The running mode is change in sequence after pressing the $\frac{\text{MODE}}{M}$ button, from AUTO-COOL-DRY .(For example)To select the cool operate mode, Press Mode button continuously until"cool"is shown on display screen.
- 3.press the pan button to select fan speed.
- 4.Press △ to select air flow blowing direction.
- 5.Press the ${}^{0\text{N/OFF}}_{\ensuremath{\mathfrak{O}}}$ button to stop machine.

Once the operation mode has been selected, the same operation mode will start after the ON/OFF button pressed on.

Temperature adjustment

To lower the temperature, Press the \(\nabla \) button, One press lowers the temprature by about 1°C.

To raises the temperature, Press the button, One press raise the temprature by about 1°C.

In "DRY" operation

When Dry operation starts, The air conditioner running under low speed of fan, and it cannot be changed, Con -trolled by the microprocessor, the fans in the outdoor and indoor unit operate occasionally for "DRY" opera -tion. The room temperature is slightly lowered in this operation mode, the "DRY" function can not be done when the room temperature is 13°C or lower.

Air Flow velocity adjustment

Press the button ^{FAN} to adjust the air flow velocity. Each time the button is pressed, fan speed is changed as follows: AUTO-LOW-MEDIUM-HIGH,

Adjust horizontal direction of wind

Please don't use hand to adjust the horizontal of vane swing. The vane swing will adjust the direction from up to down and left to right by freely under running. please be careful in case to harm your

Swing up and down to supply air

- 1. Swing supply air: Please press the button \(\int \), Vane swing freely in horizontal direction, supplying air from corner to corner of room. Press the button \(\shcap \) again, The vane stop to swing.
- 2. Fixed angle to supply air: Please press the button , the vane will swing to your wanted angle to supply air.
- 3.Please press Statton to adjust the up and down direction of vane, Each time the button is pressed, air supply direction is changed

Note -

Please use remote controller to adjust the direction of vane, otherwise will cause error if you use hand to change the direction of vane directly.

Screen display

The screen display shows * after power on. It means the air conditioner is working under current mode. For example, if the screen display too bright when you are in sleep, it will hide the display content after you pressing the screen display button. And reset display if you press any button.

Notice: This remote controller is the latest type, and some types don't have above function.

USE METHOD OF REMOTE CONTROLLER

To set timer on/off function

Press the timer on button , the appears in the display and begins to glitter. The glitter will last on 1 min, it prompts you that you can start to set the timer on function. It will be canceled if you press the timer button again. Press the timer off button when the unit is on, or press timer off button after pressing timer on button to set the timer, the appears in the display and begins to glitter, and it will last on 1 min, it prompts you that you can starts to set the timer off function. The function will be canceled if you press timer off button again. Press and to set timer on and timer off function which you need. Each press of the , the set time will increase by 1 hour. Each press of the . the set time will decrease by 1 min.

To use the timer on/off function together

Press the timer on button to set the timer on function first, and then press the timer off button to set the timer off function. the timer on/off functions are use together at this time.

Notice

Please confirm whether the electronic clock is set right or not before setting the timer on/off function. If the current time is the time of the timer on/off, and the state of the machine is the same as the requirement of the time set, the operating mode will not be changed.

Set the comfortable sleep mode function

- 1. The air condition unit is power on.
- 2.Press the sleep button to enter the operation of sleep mode function.

Sleep function

1.The fan motor indoor changes to the Auto speed. 2.In cool operatiton, each hour the temperature will raise by 1 $^{\circ}$ C, but the changing range is only 2 $^{\circ}$ C. 3.In dry operation, the room temperature often does not change.

To cancel the sleep mode function

The function can be canceled as below:

- 1.Press the sleep mode set button again.
- 2.Press the on/off button or stop the machine auto -matically.

Notice:

This remote controller is the latest type.

Please according to this instruction if the instruction has difference from the object. If this remote controller is used together with the cabinet type, \nearrow button control the horizontal direction and \triangle button control the vertical direction.

There is not swing function if the remote controller is used for some air conditioner units such as portable, \mathbb{R} and \triangle button does not work.

Working condition of unit

Mode	Cool
Room Temperature	16℃~31℃

Notes:

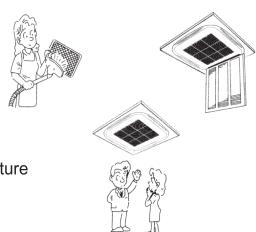
- 1. The efficiency of unit will be worse under condition except above.
- 2.If you select "COOL" mode under wet wea -ther(Relative humidity higher than 80%). It will appear condensation water on indoor panel, at this time, it will be better if select high wind mode.

HOW TO GET THE BEST EFFICIENCY

Clean the air filter frequently.

Dirty or blocked filter will influence the efficiency.

● Set the reasonable temperature Cooling (Hearing) is more efficient when the difference between room and out door temperature is less than 5 °C.



 Block sources of outside heat
 Use curtains to cover
 windows subject to direct sunlight during cooling.
 Avoid opening doors often unless necessary.



 Allow fresh air into room occasionally



MAINTENANCE

Nhen clean the air conditioner, you must turn off the power.

Clean air filter and indoor unit.
 Clean air filter Step:1,take out air filter

2,clean it with vacuum cleaner or water.

3,after clean it with water,please dry it, don't parch it.

Clean indoor unit.

Method 1:clean it with a clean and soft cloth.

Method 2:clean out blotch with neuter house use cleanser

- Maintenance for season finish(when the unit is not going to be used for a long time).
- O Switch on air conditioner, set fan mode; keep it running for 3-4 hours to dry the spare parts.
- Switch off air conditioner, cut off the power supply.
- Oclean air filter and indoor unit drastically.
- Take out the battery.
- Maintenance for season start.
- O Check outdoor unit and grounding wire whether installed correctly or not.
- O Check the unit's air inlet and outlet whether blocked or not.
- O Check the drainage hose whether blocked or not, the inner whether normal or not.
- O Check the installation of air cleaner whether installed correctly or not.





MALFUNCTION CHECK

Problem	Phenomenon	Cause	Remedy
Unit does After press the		Power outage	Press ON/OFF button after power restored
not operate	ON/OFF button,	Main power not on	Turn main power on
at all	can't hear the	Main power fuse blown	Replace fuse
	"Beep" from the unit, the operation lamp	Ground leakage greaker	Reset ground leakage
	doesn't light	open	breaker
	doesii t ligiit	The remote controller is	Use the remote control
	,	out of the operation range	inside the operation range
		The battery finish	Replace the new battery
The unit	The remote controller	The unit is driving the	The unit has the restart
can't start	displays the unit is	restart protection	protection procedure to
immediately		procedure, wait 3 minutes	protect the compressor,
	in operation	before the unit restart	please wait for 3 minutes.
After start		The outlet or inlet was	Clean the stem
for a while,		blocked	
the unit stop		The air filter was	Clean the filter
running		blocked or dirty	
Air is blown	The remote controller	Improper temperature	Check the temperature
out but is	displays the unit is	Setting	setting on remote controller
not cooled	in operation		display and reset the
or heated.			appropriate temperature.
		Air filter clogged	Clean air filter
		Inlet or outlet of indoor or outdoor unit blocked	Remove obstruction
		Window or door open	Close window or door

- 1. Once the unit stop caused by the power cut, even if the power come back, the unit can't restart; If you want to restart it, Press the "ON/OFF" button on the remote controller.
- 2. If there water leakage, maybe the drainage hose was blocked, please replace it. The following are not malfunctions.
- Water flowing sound is heard during operation. This is the sound of refrigerant flowing inside the air conditioner.
- Air from air conditioner may sometimes carry odors. It is not a malfunction for air conditioner itself. Clean the air filters at once.

ERROR CODE ANALYSIS

Error code analysis

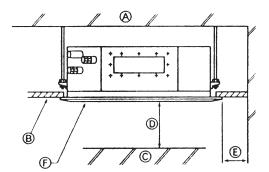
SN	Fault protection definition	Yellow timing indicator	(Red) White sleep indicator
1	Indoor coil failure sensor failure Flash 4 times, turn off for 3 seconds		
2	Indoor ambient temperature sensor failure	Flash 5 times, turn off for 3 seconds	
3	Drain or float failure	Flash 8 times, turn off for 3 seconds	
4	4 Indoor and outdoor Flash 9 times, turn off fo seconds		
5	Compressor startup abnormality (phase loss, reverse rotation)	Flash 12 times, turn off for 3 seconds	
6	Discharge temperature sensor failure	Flash 16 times, turn off for 3 seconds	
7	Outdoor coil temperature sensor failure	Flash 18 times, turn off for 3 seconds	
8 Discharge temperature overheating protection			Flash 8 times, turn off for 3 seconds
9	High pressure switch protection		Flash 14 times, turn off for 3 seconds
10	Low pressure switch protection		Flash 15 times, turn off for 3 seconds

INSTALLATION PLACE

Select the installation location

1.1 Indoor unit

- Install in a roof or frame which is strong enough.
- Install in a location where the outflow air will reach all parts of the room.
- Install in a location where the air inlet and outlet are swimmingly.
- Avoid a location where can communicate with the outside.
- Avoid a location where there is a danger that inflammable gas will be generated, inflow,accumulate or leakage.
- Apart from the high frequency equipment.
- Avoid a location where the air flow to the fire annunciatior. (when heating, the hot air maybe spring the annunciator)
- Avoid a location where should use the acidic solution or sulfur frequently.
- Secure adequate space for installation and servicing. Please refer to the follows:



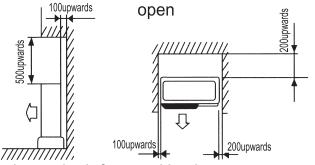
- A. Roof
- B. Ceiling
- C. Fraise
- D. More than 1 meter
- E. More than 50 cm
- F. Panel

1.2 Outdoor unit

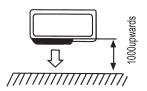
- Install in location unexposed to direct sunlight or other radiated heat. Install a sunshade to protect the outdoor unit from the sun or the rain.
- Avoid the strong wind.
- Avoid the flammable gas.
- Select location permitting easy wiring and piping to power source and indoor unit.
- Select locating from which noise emitted by unit will not inconvenience neighbors.
- Make sure the installation stand firmly anchored.

INSTALLATION PLACE

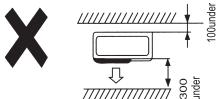
- 1.3 Adequate apace for installation and service for outdoor unit.
- 1. One unit:
- (1) When fraise on the above (2) When face (air outlet)



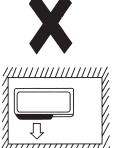
(3) When fraise only at the face. At the moment, keep the back both sides and above opening.

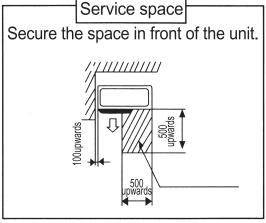


(4) When fraise on both face and back. Please do not use the measurement As follows, please refer to the (5)



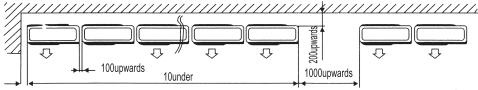
(5) When four sides all fraise. Although the above is open, but because of four sides all fraise, so it can't install here.



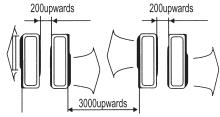


(unit: mm)

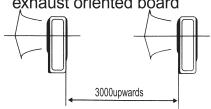
2. many units:



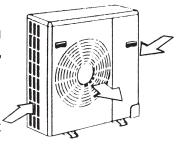
3. When collocate front and back



When do not use the outdoor exhaust oriented board

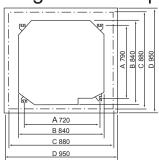


- 4. When install the unit on the roof or other location where has much wind:
- When install the outdoor unit on the roof or other location where has no building around, avoid the strong wind blows the air outlet directly. Otherwise the heat exchanger maybe influence the cooling or heating efficiency because of influence the deficient airflow.
- When the air outlet influenced by the strong wind and wind direction, please change the location of outdoor unit, let the air outlet and wind direction be a right angle.



INSTALLING THE INDOOR UNIT

- 1. Installing the indoor unit
- 1.1 Installation measurement of ceiling hatch and pothook.

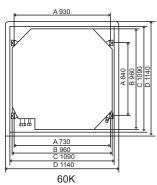


18K 24K 30K 36K 42K 48K

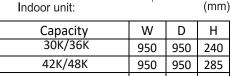
- A. Distance of pothook bolt.
- B. Exterior measurement of the unit.
- C. Measurement of ceiling hatch.
- D. Exterior measurement of the panel

Caution: Please insure the distance of 10-15 mm between ceiling and top of the unit.

1.2 Measurement of indoor unit



- I. Measurement of pipe connection.
- K. Panel.
- L. Ceiling paneling
- M. Pothook bolt.



Capacity	W	D	Н
30K/36K	950	950	240
42K/48K	950	950	285
60K	960	960	295

A. Unit

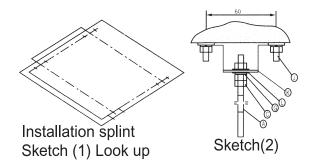
B. Panel

C. Underlay

1.3 Hanging

Caution:

- For safety, the hanger place should be strong enough. Please install the unit on the horiaontal ceiling, if the ceiling is gradient; please add some underlay to insure the level. Please refer to the installation sketch.(Right)
- 1)Install the unit on the beton ceiling.
- Please install expand bolt J refer to the sketch(1).
- Fixup installation bracket on the expand bolt J, install the pothook bolt A refer to the sketch(2).



- A. Pothook bolt
- C. Nut
- G. Spring gasket
- J. Expand bolt
- K. Installation bracket(by in local)
- L. Flat gasket

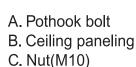
INSTALIING THE INDOOR UNIT

- Install the unit on the wooden ceiling.
- Install by the rafter.
- The rafter should be strong enough. Requirement: The distance between rafter and rafter should within 50 cm, the rafter's width should be 6 cm at least: When width should be 9 cm at least. The diameter of bolt should be 11 mm.

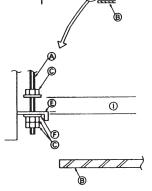


1.4 The step of hang unit.

- 1) Every pothook bolt should be installed by one nut(M10) two gasket two nut.
- 2) Lift the unit at the proper location. Note: If the unit can't aim at the ceiling installation hole, you may adjust the runner on the installation piece. Refer to sketch at the right:



- E. Installation piece
- F. Gasket
- I. At least 30 mm

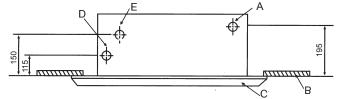


1.5 Fixup the unit.

- Adjust the unit to be horizontal by gradienter, (adjust the two nuts). Insure there is no space between ceiling paneling and panel, unit and panel.
- Insure that the unit is in the middle of ceiling hatch by tape measure.
- After insure the location, tighten the screws, fixup the unit.

1.6 Installation location of indoor refrigerant pipe and drainage hose.(mm)

- A. Drainage hose tie-in
- B. Ceiling paneling
- C. Panel
- D. Refrigerant liquid pipe tie-in
- E. Refrigerant gas pipe tie-in



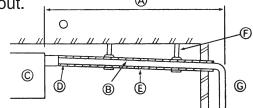
Note: The measurement in the parentheses is for 24000BTU

1.7 Installation of drainage hose.

- Connect the drainage, one end with unit water outlet, one end with PVC pipe (diameter is 20mm, please buy in local).
- The drainage hose should be installed for a gradient at least 1/100.

• Buy the heat preservation bushing to bind the PVC pipe, prevent the conensate separates out.

• The tie-in should be binded tightly to prevent water drop.



- A. Max.20m
- B. Drainage hose
- C. Indoor unit
- D. Heat preservation material (thickness bigger than 9mm)
- E. Gradient at least 1/100
- F. Metal underprop

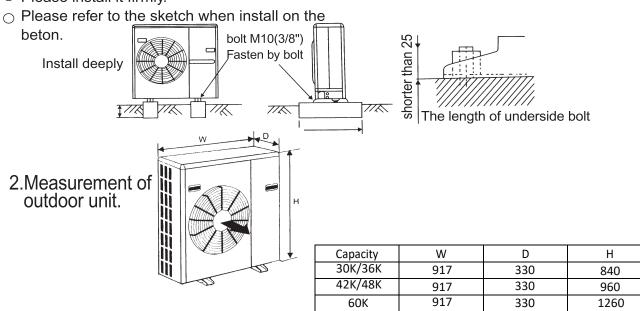
INSTALLING THE OUTDOOR UNIT

1. Installing the outdoor unit

- Better carry the unit by the original carton box to the location.
- Because the unit's barycenter is in the center, please take care when you sling it.
- The Gradient can't bigger than 45°C during the transportation.(Decumbence is prohibited)
- When install the outdoor unit, please fixup the underside by bolt.

Caution: The length of underside Bolt should be shorter than 25 mm.

O Please install it firmly.



3. Connect the pipe

- If you want to buy the pipe, please choose the heat preservation bushing that the heat preservation layer is thick than 9mm and the function should be good.
- When you use the lengthen PVC drainage hose, please choose the heat preservation layer is thicker than 6mm bind the hose.
- The measurement of refrigerant pipe and drainage hose, please refer to the drainage hose, please refer to the diagram on the right.
- 3.1 Connecting the indoor and outdoor refrigerant pipe.

Measurement of refrigerant pipe/drainage hose			
Capacity	30K/36K	42K/48K	60K
	410A	410A	410A
Refrigerant liquid pipe	9.52	9.52	9.52
Refrigerant gas pipe	15.88	15.88	19.00
Drainage hose	PVC pipe: diameter 20		

1)Keep the outdoor check valve the original, tear down the indoor and outdoor pipe nut dustproof screw cap and bolt, connect these quickly(avoid the dust water and other object come into the pipe caused the malfunction)

Before screw down the nut, please coat the tie-in with the putty.

When you connect the pipe, please use two wrenches, refer to the following diagram.

Refer to the screw moment when using the wring wrench; Refer to the screw angle when without wring wrench; When screw down the nut, please stop when the screw moment raise sharply, then refer to the following sketch to turn the angel.

INSTALIING THE OUTDOOR UNIT

Screw moment standard:

Γ			
	Copper tube diameter(mm)	Screw down wring(Newton/m)	Tightening angle
	9.52	35-40	60°-90°
	15.88	73-78	30°-60°
	19.05	98-130	20°-35°



- 2) Connection in sequence, connect the entire refrigerant pipe.
- After connect the pipe, you should fill air to keep the pressure, and check whether leak or not by leakage equipment or suds.
- 3) Take out the vacuum from check valve maintenance's port by vacuum pump.
- 4) After finishing the above steps, unscrew the gas liquid valve by inner 6-angel wrench; thereout the refrigerant loop is connected.
- 3.2 Adjustment of refrgerant
- Bell-mouth joint and copper bared is prohibited, bind the bare part with heat preservation bushing, and fix it up.
- 3.3 Adjustment of refrigerant
- When the pipeis longer than 6m, add the refrigerant. The superaddition should calculate by the following expressions: superaddition(g)=20g/m x (A-6) A means length of pipe (m)
- Please use vacuum pump take out the refrigerant.

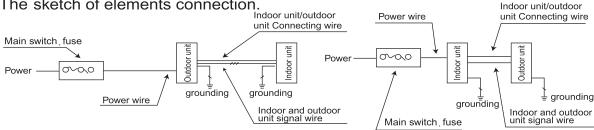
INSTALLING THE ELECTRIC WIRE

1. Electric wire installation

1.1 Caution:

- Please install the special power and the creepage switch.
- Please check the unit's voltage and electric wire before connection.
- The electric wire should be installed according with the requirement. Screw down the
- The unit's signal part can't be connected to the power of 220V, otherwise malfundtion can be caused.
- Because signal board has the polarity, so please connect it by the correct number. If the connection is wrong, the compressor will not work.





1.3 Connection specification

Туре			30K/36K/42K/48K/60K	
Power Supply			3N~50Hz, 380V	
Input current (Main Switch/Fuse) (A)			30	
Wire	Outdoor unit	Quantity of electric wire	5(Greenish-Yellow is ground wire)	
	electric wire	Core wire section(mm ²)	4 x 3.0 + 1 x 1.5	
Electric	Indoor and outdoor Quant	Quantity of electric wire	4(Greenish-Yellow is ground wire)	
ä	Elé	connection wire	Core wire section(mm ²)	4 x 1.5

Caution:

- When you install the electric wire, please consider the circumstance (temperature) sunlight directly rain)
- Both the indoor and outdoor unit should have the ground wire connected
- The installation should comply with the local's standard

INSTALLING PANEL AND TRIAL OPEATION

A. air inlet grill

trough

C. panel

D. Air filter

B. Air inlet grill pull

E. Switch of air filter

F. Panel installation hole.

1.Install the panel

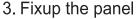
1.1 Installation of panel

1.Take down the air inlet grill, take out air filter;

Undraw the air inlet grill in the direction of arrow (1), take down the orientation axes in the direction of arrow (3) and (4), take down the air filter in the direction of (5).

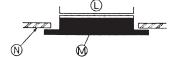


Hang the panel G on the unit's gasket bolt correctly.



Tighten the screws; don't leave the space between panel and

ceiling.



L. unit

M. panel

N. ceiling

4. Circuity connection

Connect the two tie-ins of unit and panel, the tie-in should be firm.

2. Trial operation

- 1.1 Confirmation before trial operation
- After install the indoor/outdoor unit, joint the pipe and connection, confirm again that there
 is no refrigerant leakage, the power wire signal wire connect firmly and correctly.
- 1.2 Try operation
 - 1) Turn on main switch.
 - 2) Press the "ON/OFF" button on the remote control, if you heard the "beep", it means the remote control is ok, then press the other button:

Press Mode button, select Cooling mode, and check whether there is cool air blows out. Press Mode button, Select Heating mode, and check whether there is hot air blows out. Press (Fan speed) button, select "High" mode, and check whether there is strong air blows out.

Press Swing button, check whether the vane is swinging and then press it again to stop it.

- 3) Press the "ON/OFF" button again to stop the operation.
- 1.3 Check the drainage set.

After installation finished, you should check the drainage set.

When trial operation, the water must be drain out and the tie-in should not be leakage.

- 1) Before install the panel, debus the water inlet window at the side of unit, and then fill around 1000ml water into the water plate by water supply pump. Please install the water inlet window back after fill.
- 2) Turn on the unit, when cooling mode, please check where there is water leakage.

