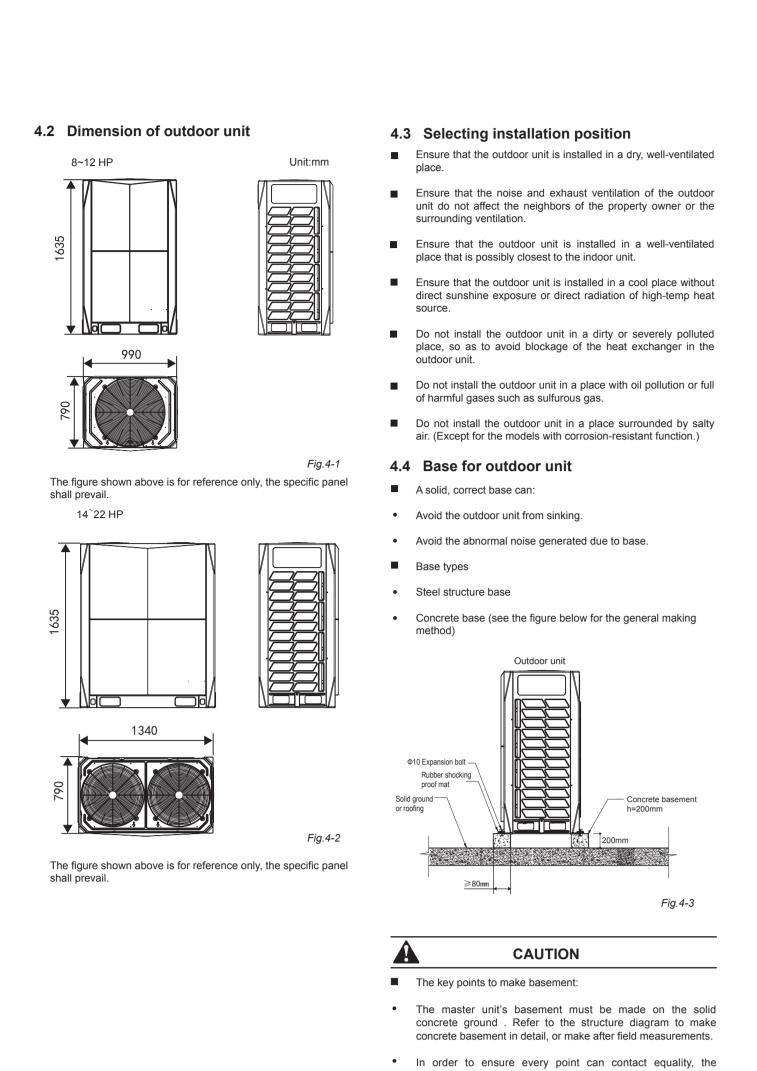
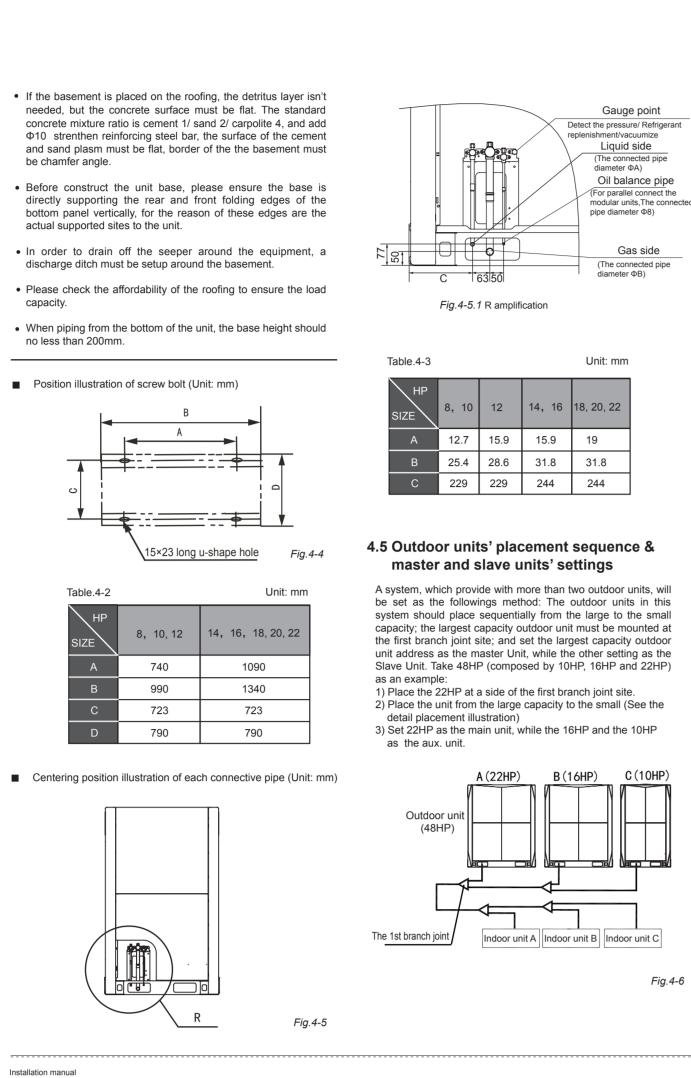
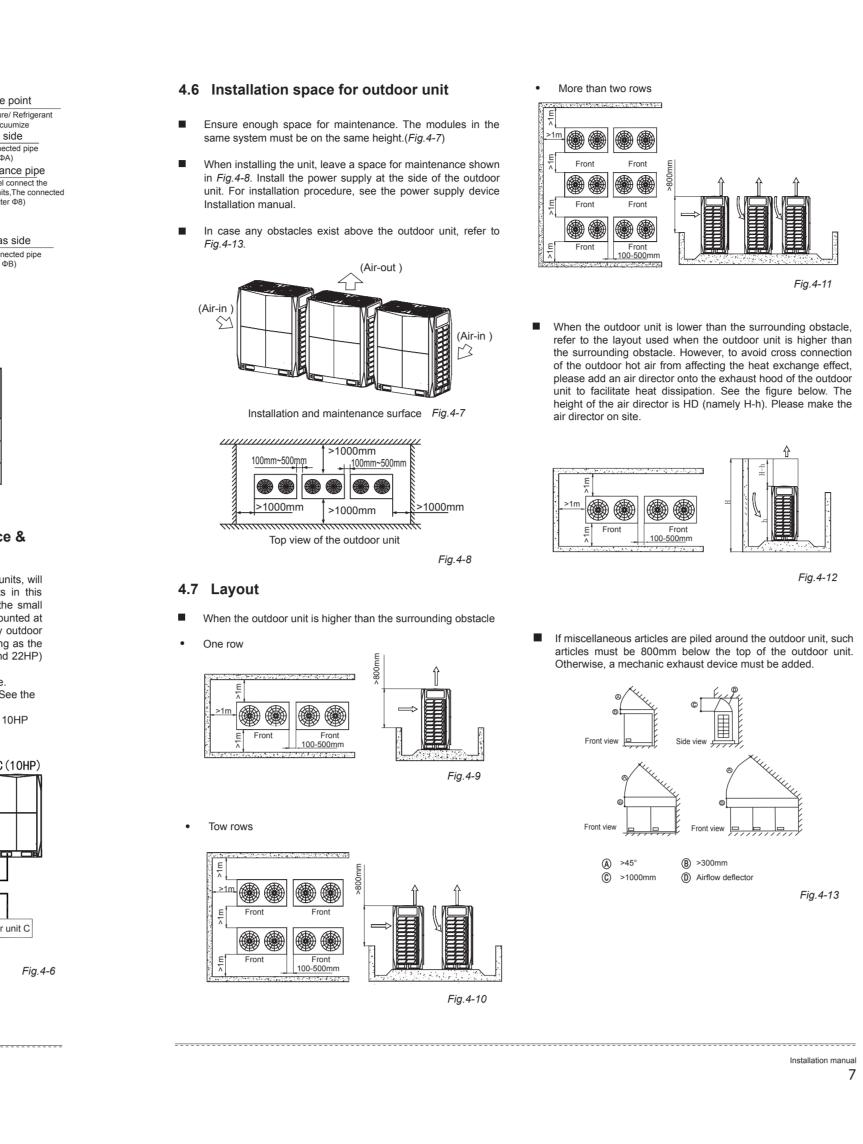
## Thank you very much for purchasing our air conditioner, Before using your air conditioner, please read this manual carefully and keep it for future reference. Caution: The manual is applicable for the cooling&heating and cooling only outdoor unit. The cooling&heating indoor unit is applicable for the cooling&heating and the cooling only outdoor unit; the heating capacity of the indoor unit will be effective only when the indoor unit connect to the cooling&heating outdoor unit.







CONTENTS

PRECAUTIONS.....

ACCESSORIES....

CONSTRUCTION CHECKPOINTS....

OUTDOOR UNIT INSTALLATION...

REFRIGERANT PIPE.....

ELECTRIC WIRING......

1. PRECAUTIONS

the power source unit.

install the refrigerant distributor.

wiring regulations.

to the equipment.

the owner's manual for future reference.

equipment.

install, repair or service the equipment.

Precautions before reading the Installation manual.

■ Refer to the indoor unit Installation manual for indoor parts

Please read the power source unit Installation manual to install

Please refer to the refrigerant distributor Installation manual to

The safety precautions listed here are divided into two categories. In

either case, important safety information is listed which must be read

Failure to observe a warning may result in death. The

appliance shall be installed in accordance with national

\_ \_ \_ CAUTION \_ \_ \_ \_ \_

Failure to observe a caution may result in injury or damage

After completing the installation, make sure that the unit operates

properly during the start-up operation. Please instruct the customer

customers that they should store this Installation manual along with

WARNING

■ Be sure only trained and qualified service personnel to

Improper installation, repair, and maintenance may result in

electric shocks, short-circuit, leaks, fire or other damage to the

on how to operate the unit and keep it tained. Also, inform

This Installation manual is for the outdoor unit.

TRIAL RUN......

Install according to this installation instructions strictly.

■ When installing the unit in a small room, take measures

If installation is defective, it will cause water leakage, electrical

against to keep refrigerant concentration from exceeding

allowable safety limits in the event of refrigerant leakage.

Contact the place of purchase for more information. Excessive

refrigerant in a closed ambient can lead to oxygen deficiency.

Otherwise, it will cause the set to fall, water leakage, electrical

If the strength is not enough or installation is not properly done,

Use the attached accessories parts and specified parts for

Install at a strong and firm location which is able to

■ The appliance shall be installed in accordance with

The appliance shall not be installed in the laundry.

Before obtaining access to terminals, all supply circuits

The appliance must be positioned so that the plug is

by symbols, with the direction of the fluid flow.

■ For electrical work, follow the local national wiring

work, it will cause electrical shock fire.

board cover is fixed properly.

person in order to avoid a hazard.

■ The enclosure of the appliance shall be marked by word, or

standard, regulation and this installation instructions. An

If electrical circuit capacity is not enough or defect in electrical

Use the specified cable and connect tightly and clamp the cable so that no external force will be acted on the

If connection or fixing is not perfect, it will cause heat-up or fire

If control board cover is not fixed perfectly, it will cause heat-up

■ Wiring routing must be properly arranged so that control

at connection point of terminal, fire or electrical shock.

If the supply cord is damaged, it must be replaced by the

manufacture or its service agent or similarly qualified

■ An all-pole disconnection device which has at least 3mm

incorporated in the fixed wiring according to the national

Otherwise, it will cause lower capacity, abnormal high pressure

Installation manual

separation distance in all pole and a residual current

When carrying out piping connection, take care not to let

air substances go into refrigeration cycle.

in the refrigeration cycle, explosion and injury.

device(RCD) with the rating of above 10mA shall be

independent circuit and single outlet must be used.

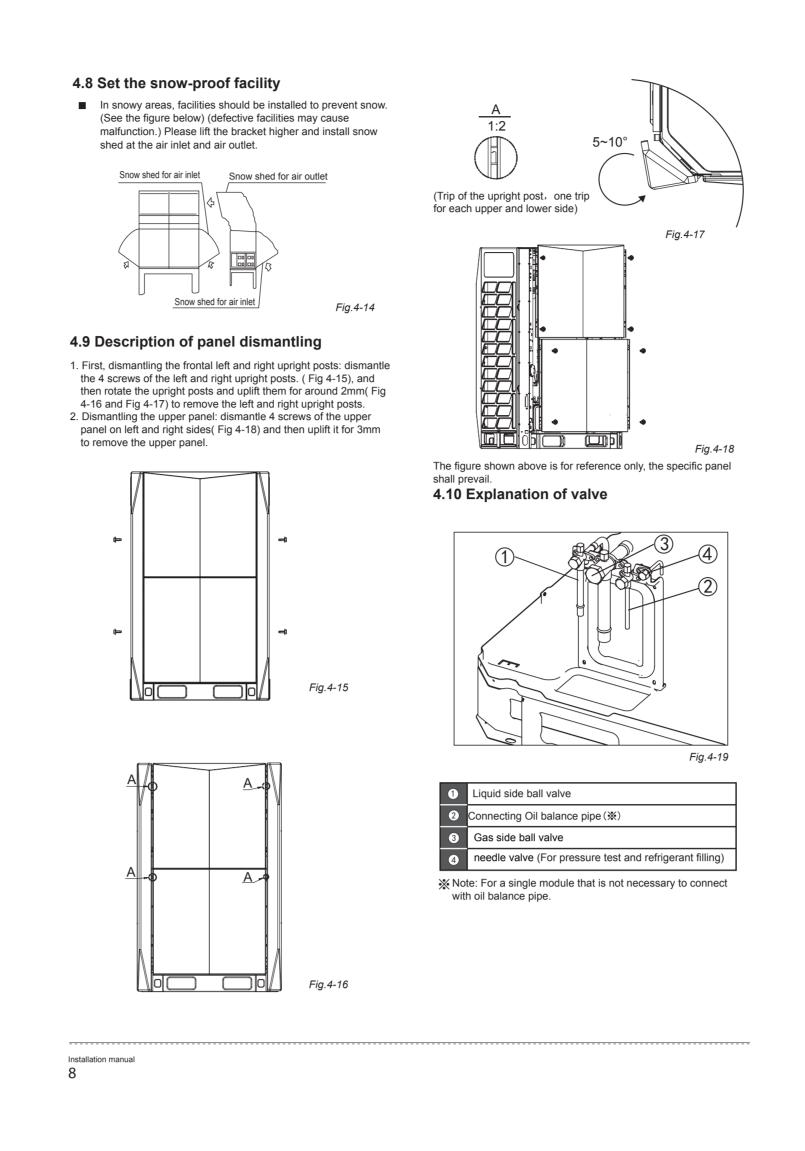
withstand the set's weight.

the set will drop to cause injury.

national wiring regulations

must be disconnected.

at the connection.



■ Do not modify the length of the power supply cord or use ■ The appliance is not intended for use by young children or

infirm persons without supervision.

There is salty air surrounding (near the coast).

The Volt vibrates violently (in the factories).

There is strong electromagnetic wave existing.

• There is acid or alkaline liquid evaporating.

In kitchen where it is full of oil gas.

• There are inflammable materials or gas.

do not play with the appliance.

There is petrolatum existing.

(near a hot spring).

In buses or cabinets.

Other special conditions

Electric Standard.

Acceptance and Unpacking

pipe before welding.

MPa(40kgf/cm<sup>2</sup>) nitrogen].

Do not connect the ground wire to gas or water pipes, lightning

• After removing the outer package, please keep the operation

Failure to install an earth leakage breaker may result in electric

• Check the model and name to avoid mistaken installation.

equipment conform to the contract.

instructions well and count the accessories.

■ Young children should be supervised to ensure that they

Don't install the air conditioner in the following locations:

(Except for the models with corrosion-resistant function)

There is caustic gas (the sulfide, for example) existing in the air

■ The insulation of the metal parts of the building and the air

CONSTRUCTION CHECKPOINTS

After the machine arrives, check whether it is damaged during

damaged, submit a written report to the shipping company.

Check whether the model, specification and quantity of the

An additionally purchased refrigerant distributor (manifold

The refrigerant pipes must have the specified diameter.

The refrigerant pipe must undergo heat insulation treatment.

 After the refrigerant pipe is installed completely, the indoor unit cannot be powered on before performing the airtight test and

undergo the airtight test and vacuum extraction.

adapter and manifold pipe) must be used for installing the

Nitrogen of a certain pressure must be filled into the refrigerant

creating a vacuum. The gas-side and liquid-side pipes must

The refrigerant pipe must undergo the airtight test [with 3.9

the shipment. If the surface or inner side of the machine is

conditioner should comply with the regulation of National

of extension cord, and do not share the single outlet with

Improper installation work may result in the equipment falling

keep the interconnection cable away from the copper tube.

Toxic gas may be produced if the refrigerant comes into the place

Toxic gas may be produced if the refrigerant leaks into the

room and comes into contact with a source of fire, such as a

After completing the installation work, check that the

CAUTION

■ The cooling&heating indoor unit is applicable for the

cooling&heating and the cooling only outdoor unit;the

when the indoor unit connect to the cooling&heating

This A/C is a kind of amenity unit. Don't install it at the

place where for storing machine, precise instrument, food,

plant, animal, artwork or any other special used occasion.

rod or a telephone ground wire. Incomplete grounding may

■ Connect the outdoor unit wires , then connect the indoor

You are not allowed to connect the air conditioner with the

power source until wiring and piping the air conditioner is done.

While following the instructions in this Installation manual,

install drain piping in order to ensure proper drainage and

Improper drain piping may result in water leakage and property

Install the indoor and outdoor units, power supply wiring

and connecting wires at least 1 meter away from

televisions or radios in order to prevent image interference

Depending on the radio waves, a distance of 1 meter may not

insulate piping in order to prevent condensation.

be sufficient enough to eliminate the noise.

5.3 Select the refrigerant piping type

heating capacity of the indoor unit will be effective only

Carry out the specified installation work after taking into

■ The temperature of refrigerant circuit will be high, please

If the refrigerant leaks during installation, ventilate the area

account strong winds, typhoons or earthquakes.

other electrical appliances.

and causing accidents.

contacting with fire.

refrigerant does not leak.

fan heater, stove or cooker.

outdoor unit.

Ground the air conditioner.

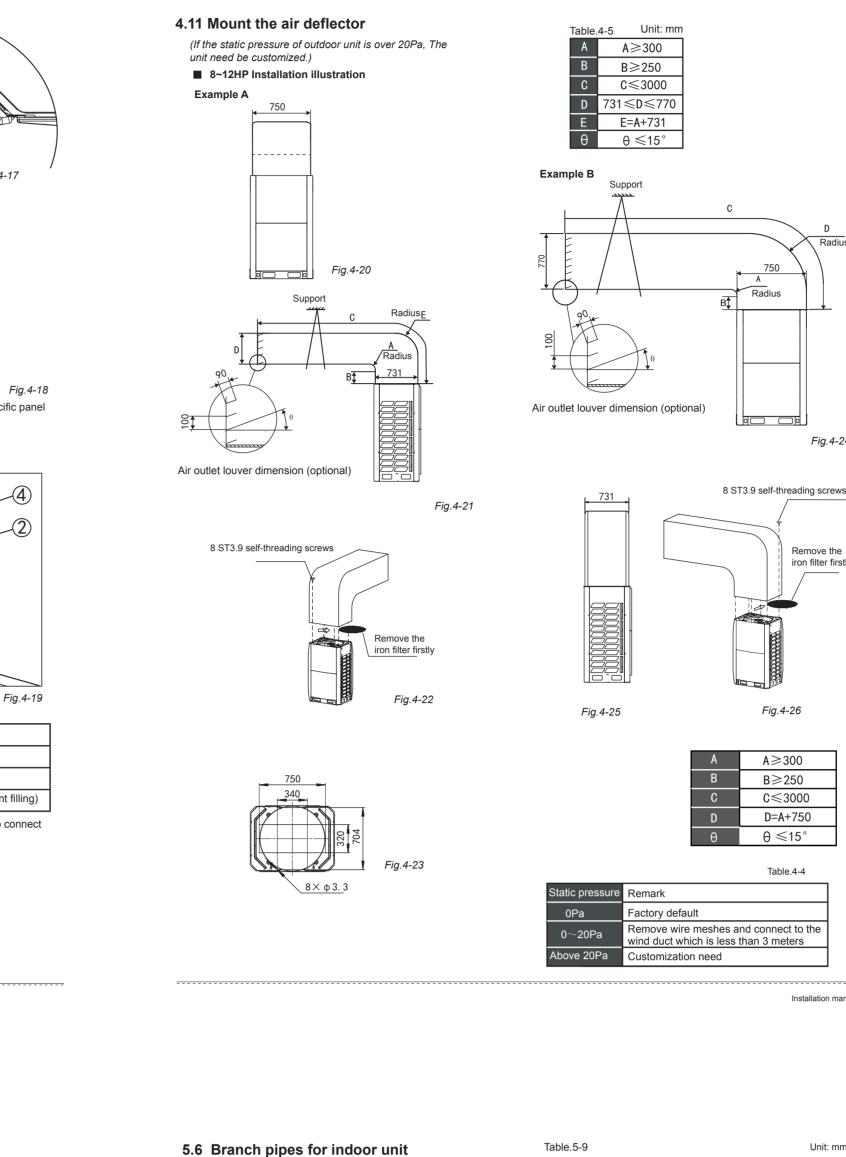
Be sure to install an earth leakage breaker.

result in electric shocks.

Otherwise, it will cause fire or electrical shock

The power cord type designation is H07RN-F.

Equipment complying with IEC 61000-3-12.



• In order to prevent misoperation of the air conditioner, do not

Power on the indoor unit after performing the airtight test and

For details of setting the address of the outdoor unit, see

Before operation, remove the six pieces of PE foaming which

Perform the trial run only after the outdoor unit has been

are used at the rear of the unit for protecting the condenser. Be

careful not to damage the fin. Otherwise, the heat exchange

Function

\_\_\_\_

Be sure to deliver it to the customer

Be sure to deliver it to the customer

For dialing of individial indoor unit

For maintenance

For connecting pipes

For pipe cleaning

For connecting pipes

Enhance stability of communication

For dismantling screws of side plates

For grooving the power wire

Table.3-1

(low-voltage wires) of the indoor/outdoor unit.

Outdoor unit address bits.

performance may be affected.

powered on for over 12 hours.

interleave or entwine the power cablewith the connection wires

Creating a vacuum

Refrigerant replenishment

for future reference.

ACCESSORIES

Electric wiring

Be sure to use the vacuum pump to create a vacuum of the

connective pipe at the gas side and liquid side concurrently.

• If the length is greater than the reference pipe, the refrigerant

Record the refrigerant replenishment quantity, actual length of

Select the power supply capacity and wire size according to

generally thicker than the power cable of the motor.

the design manual. The power cable of the air conditioner is

All of units

Outline

\_\_\_\_

1(Optional)

replenishment quantity for each system should be calculated

through the formula obtained according to the actual length of

pipe and the height difference of the indoor & outdoor unit onto

the operation confirmation table of the outdoor unit in advance

4. OUTDOOR UNIT INSTALLATION

4.1 Outdoor unit combination

% of the combined capacity of outdoor units.

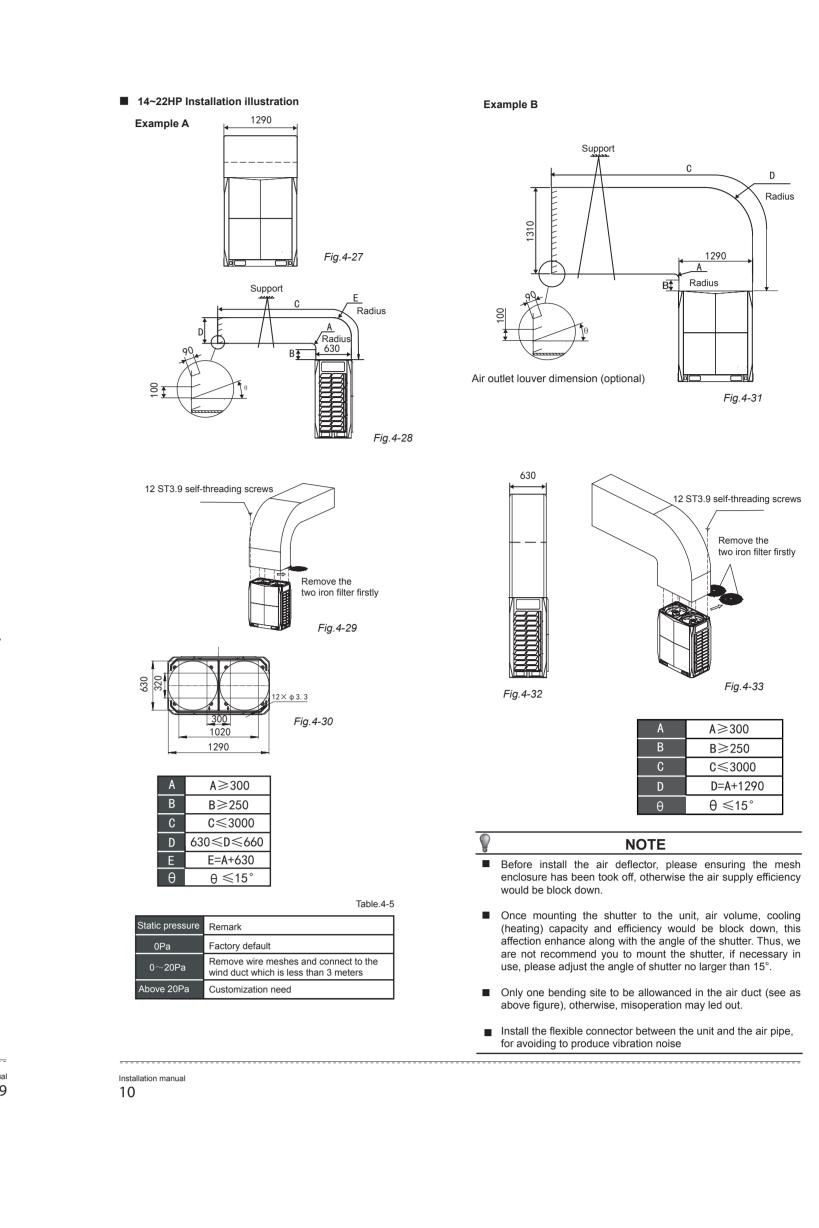
Installation manual

the indoor units should less than the combined capacity of outdoor units.

14

18

24



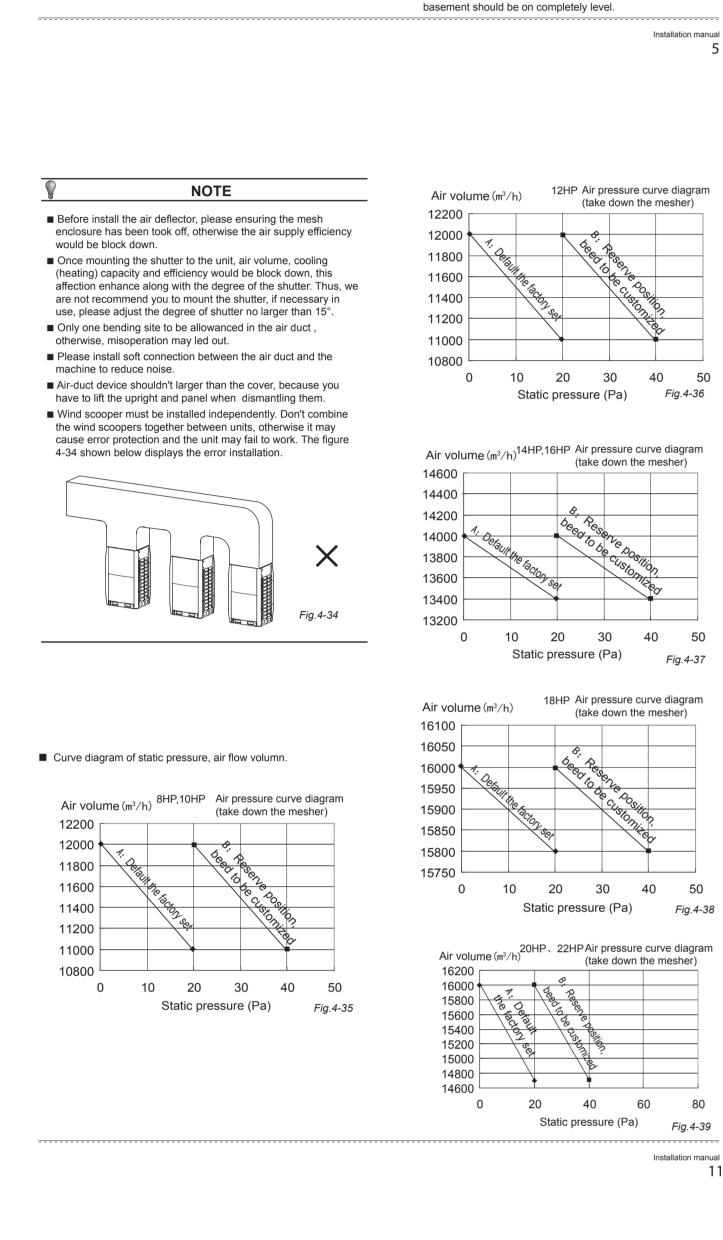
CAUTION

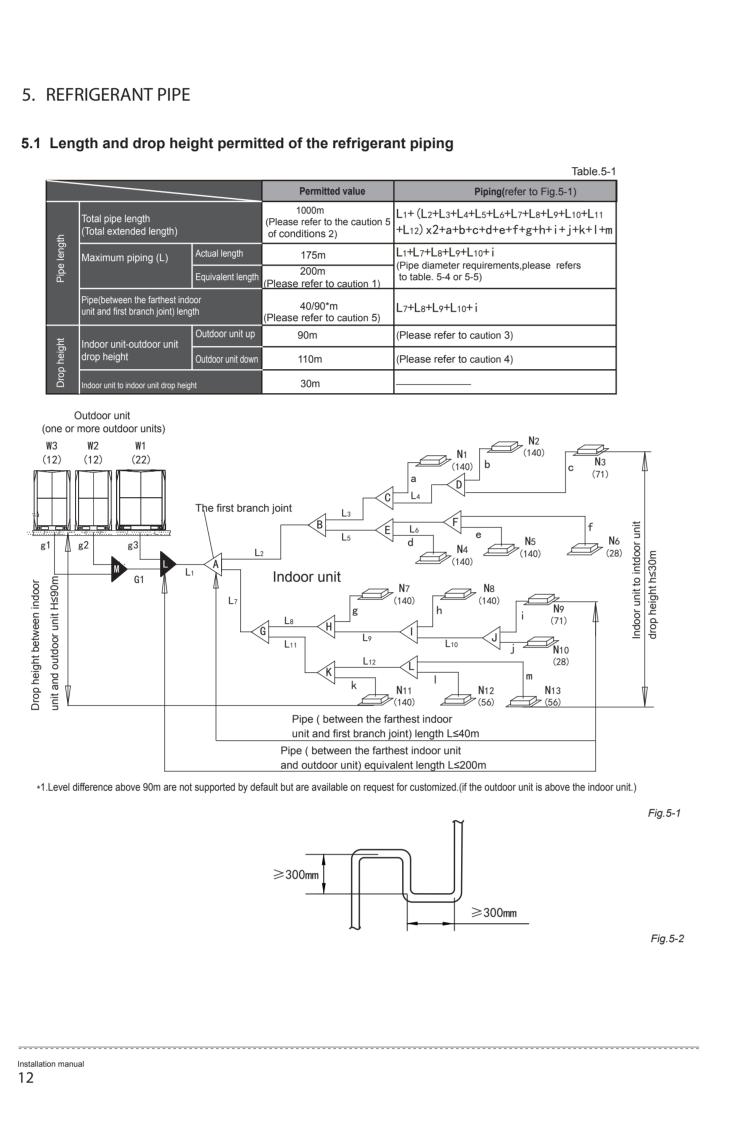
• When all of the indoor units operate simultaneously in the system, the total capacity of the indoor units should less than or equal to the

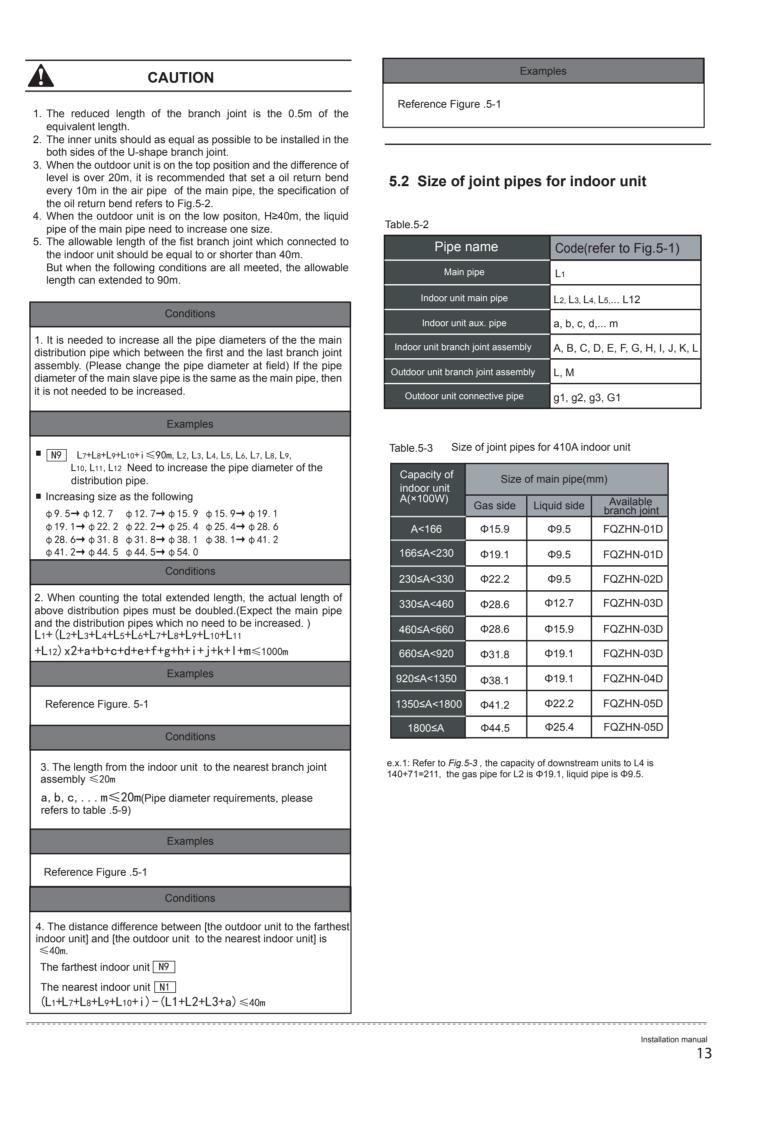
combined capacity of outdoor units. Otherwise overload operating will occur when working in a bad working condition or narrow space.

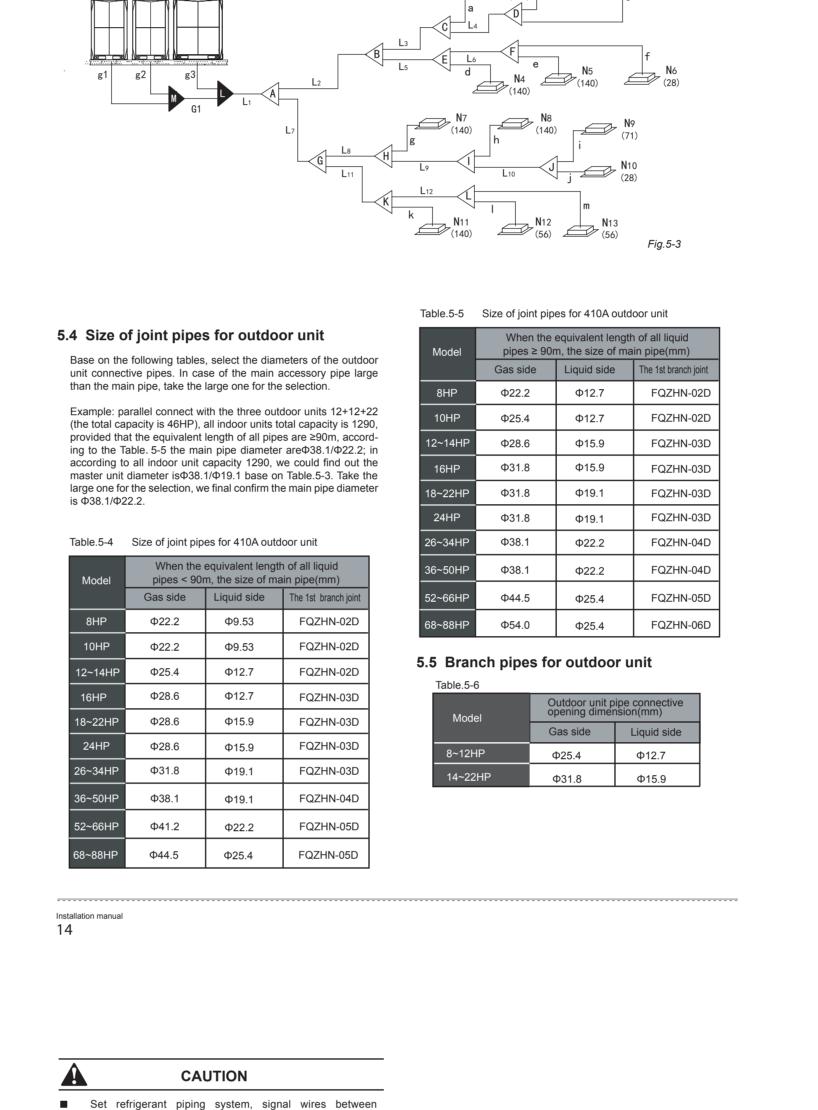
• When all of the indoor units don't operate simultaneously in the system, it is allowed for maximum total capacity of the indoor units is 130

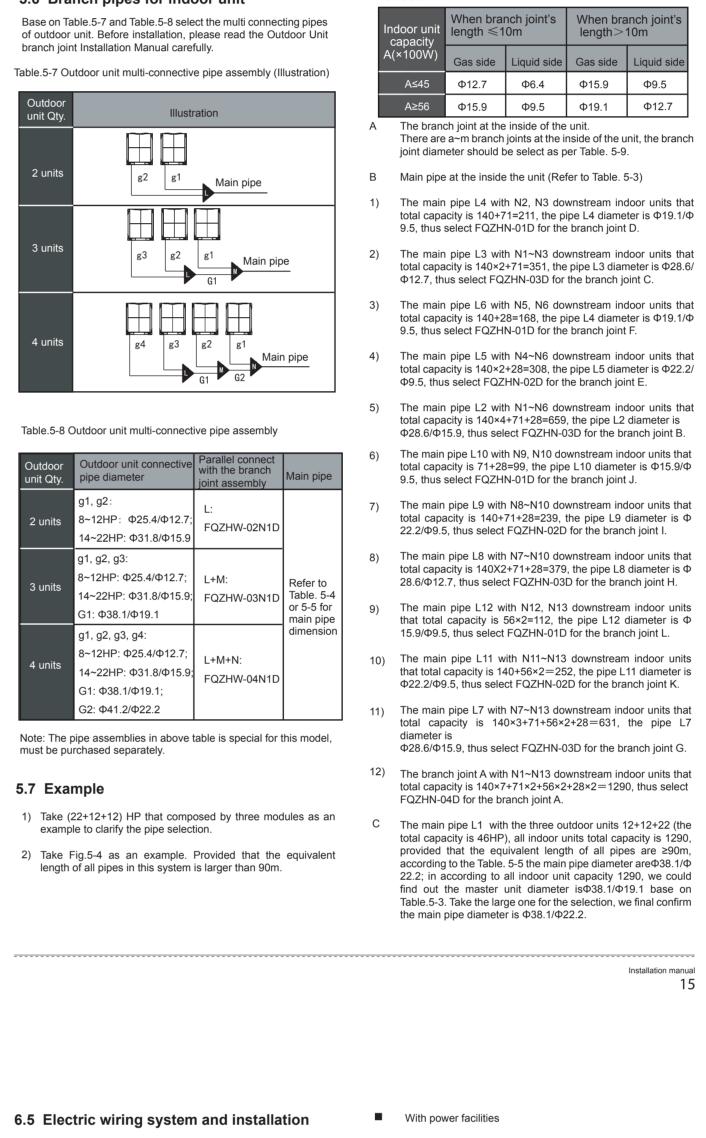
• If the system is used in cold environment (ambient temperature is under -10°C) or in high heat overloading condition, the total capacity of

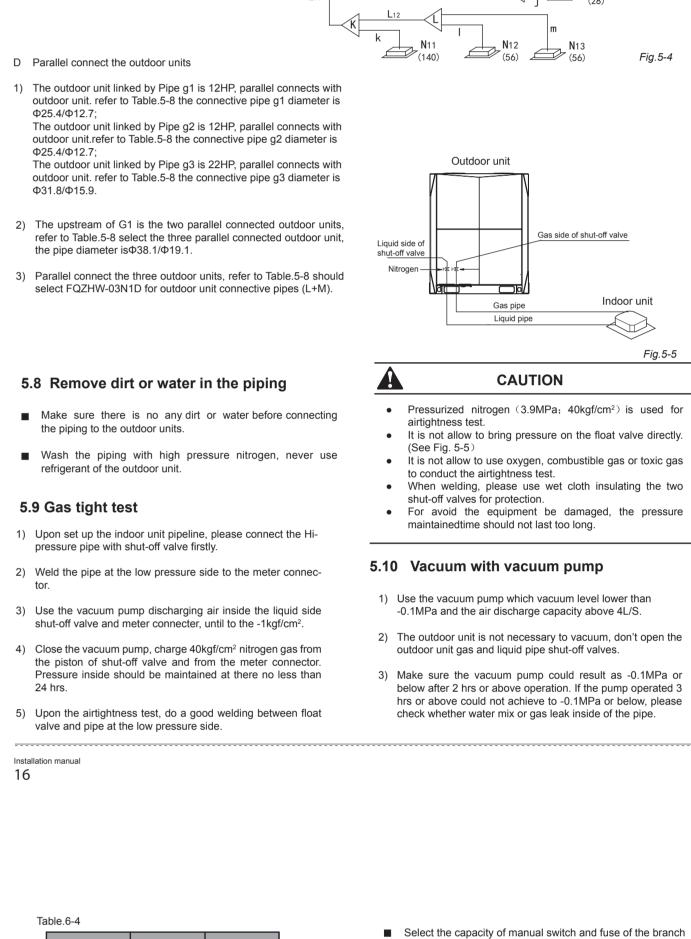


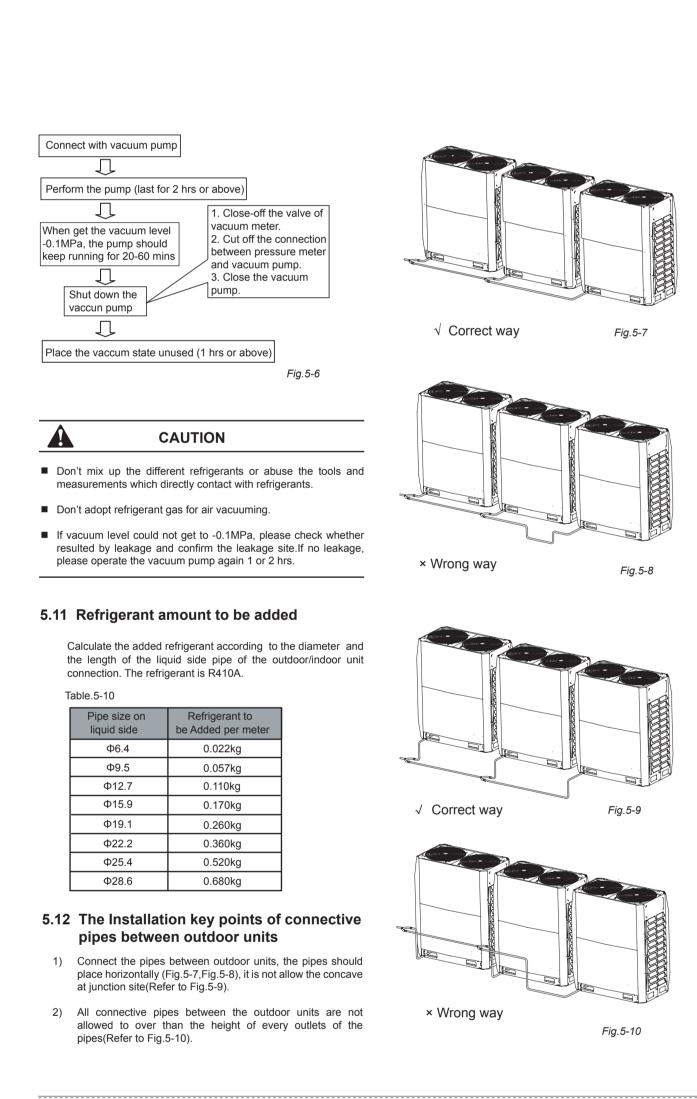


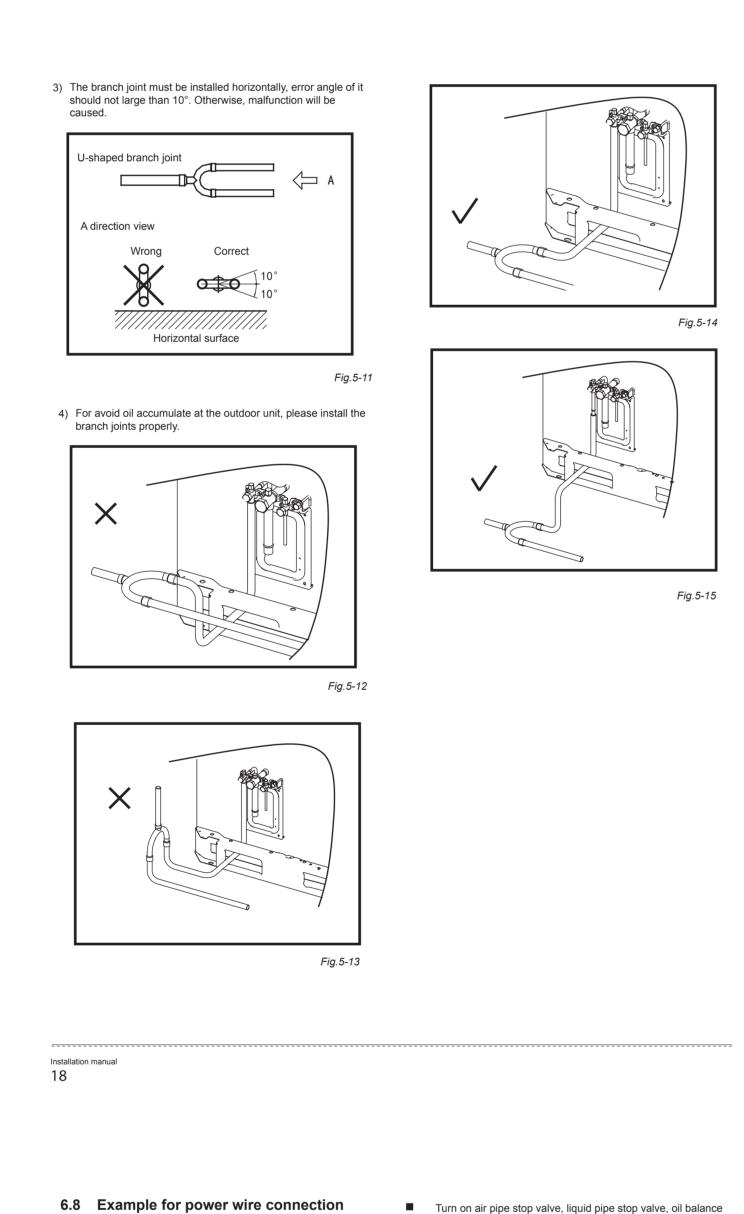


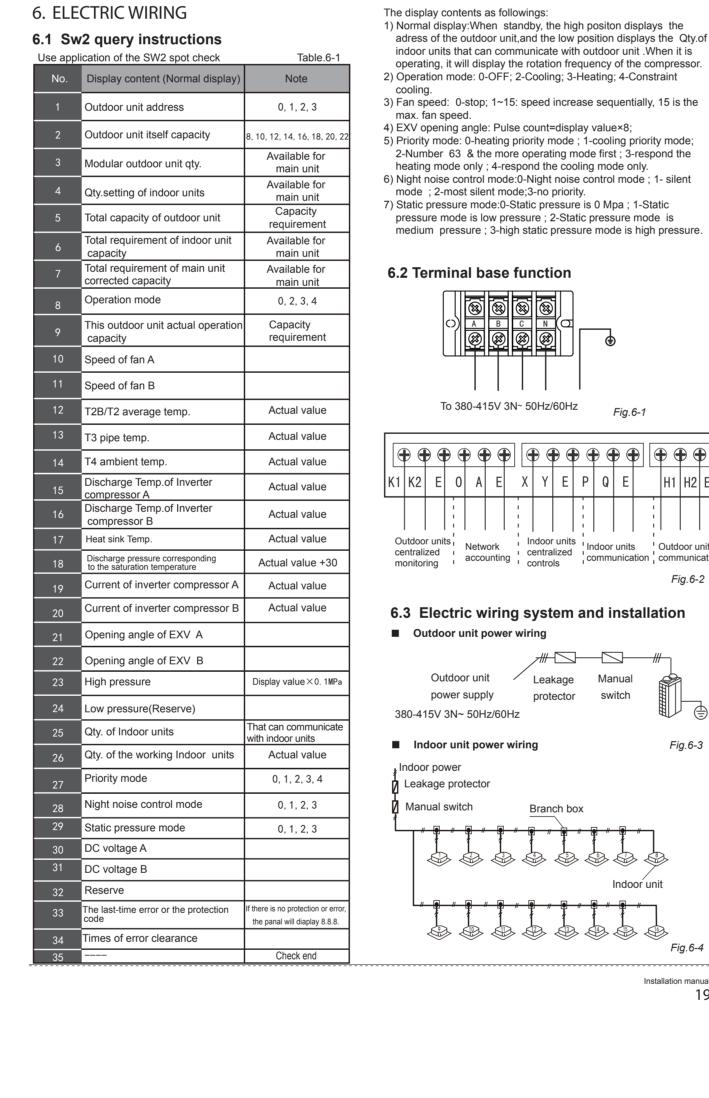


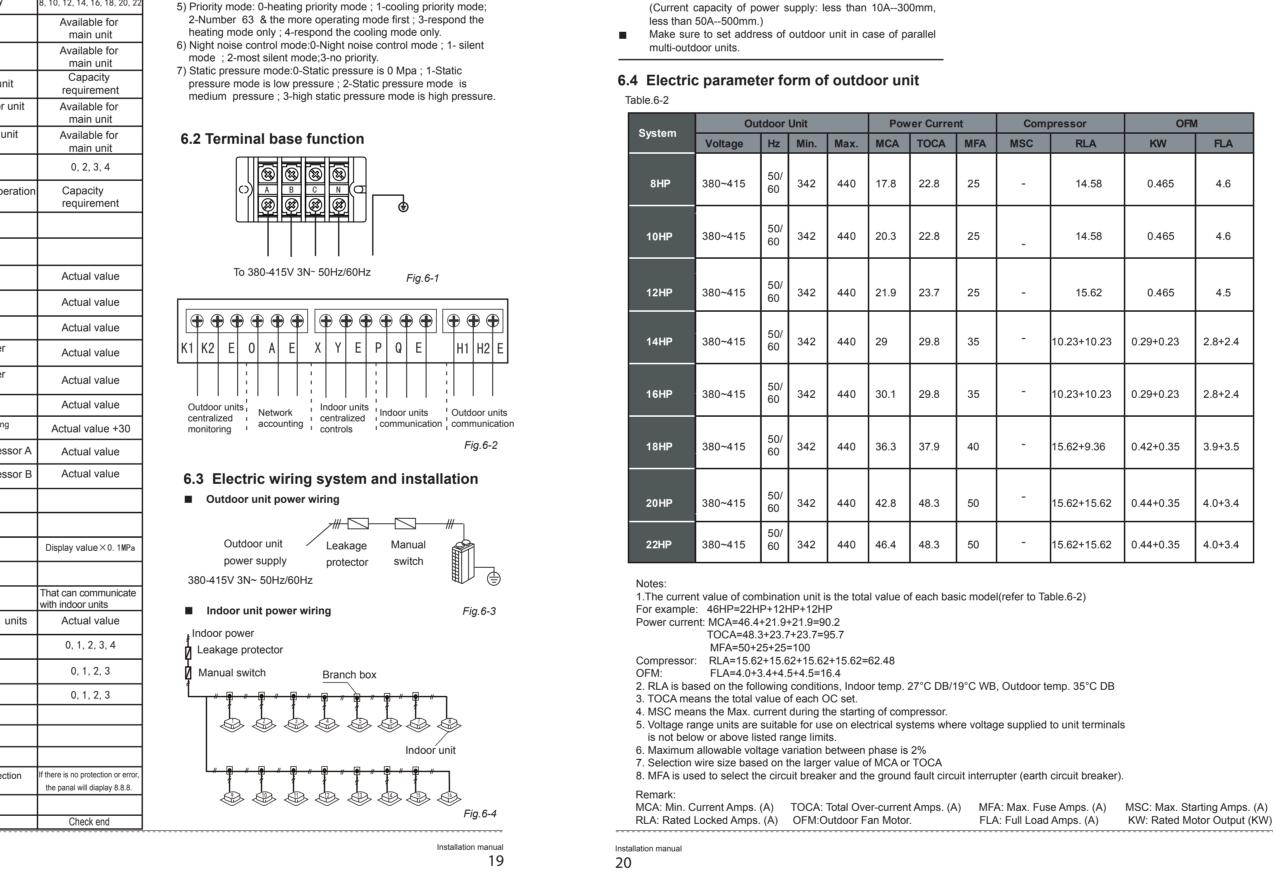


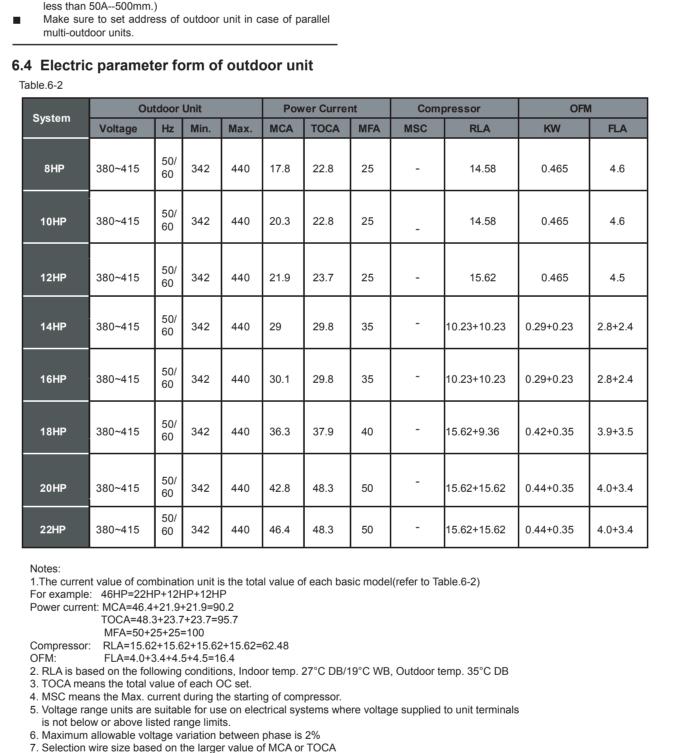












FLA: Full Load Amps. (A) KW: Rated Motor Output (KW)

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indoor-indoor unit, and that between outdoor-outdoor unit

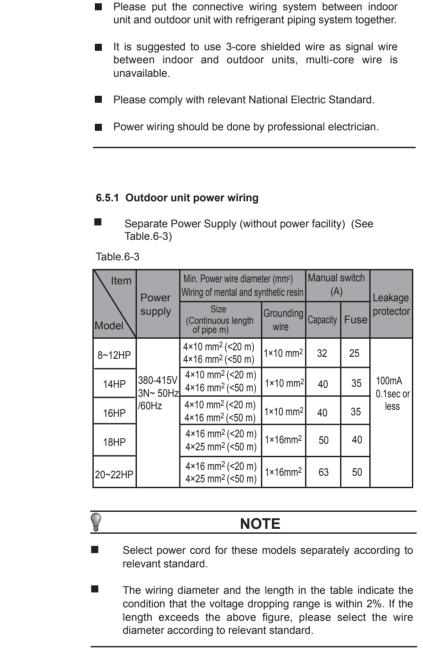
same wire tube; keep distance between the two tubes.

Power must unified supply to all indoor units in the same

■ Please do not put the signal wire and power wire in the

MD14I-058DW

Installation manual



CAUTION

Please select power supply for indoor unit and outdoor unit

■ The power supply should have specified branch circuit with

The power supply, leakage protector and manual of all the

would affect seriously, even the unit may not turn on.)

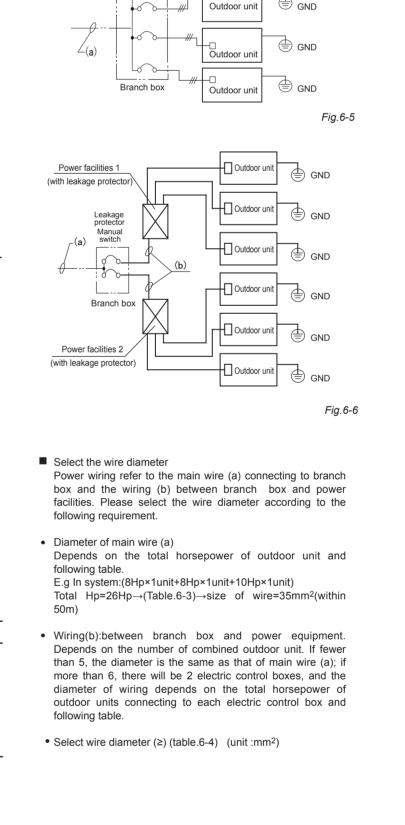
indoor units connecting to the same outdoor unit should be

universal. (Please set all the indoor unit power supply of

one system into the same circuit. It should turn on or shut

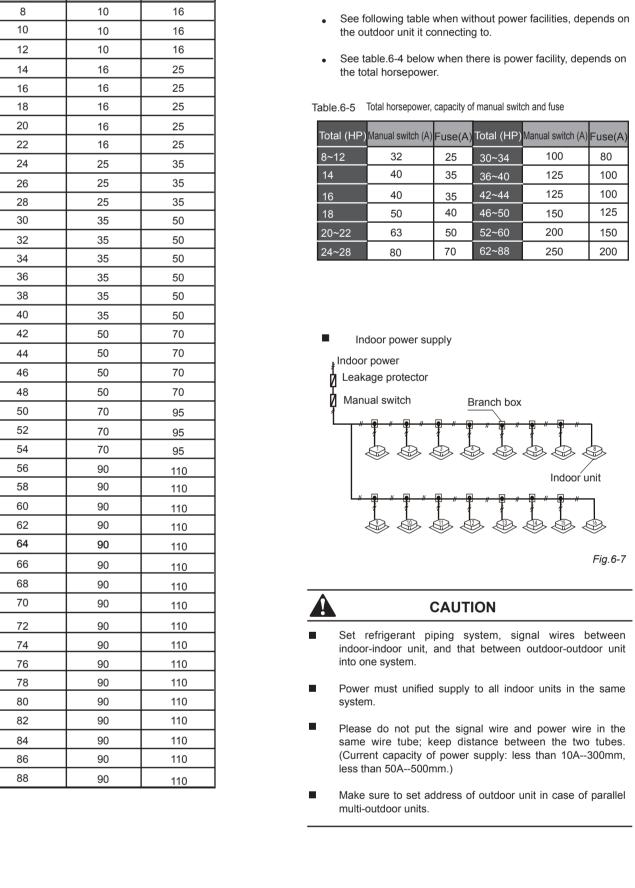
down the unit at the same time, otherwise, the service life

leakage protector and manual switch.

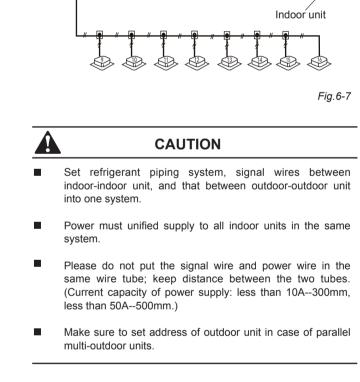


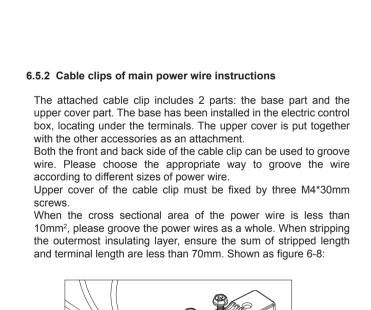
Outdoor unit Leakage Manual power supply protector switch

380-415V 3N~ 50Hz/60Hz



Installation manual





■ When installing the main power wire, strip of appropriate length of the insulation layer according to the grooving way and position of

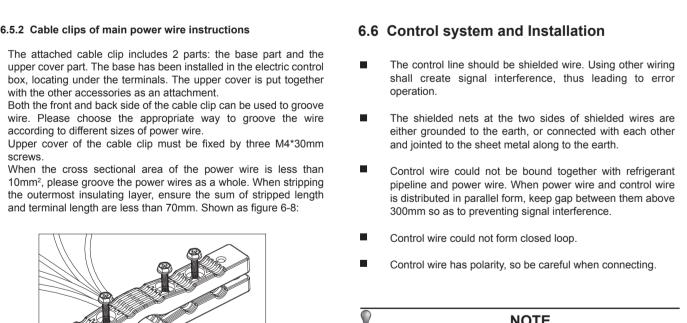
■ When install the three fixed screws, twisting length should ensure

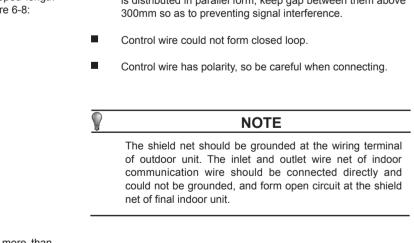
the displacement is less than 2 mm when applying 100 N force

onto the wires. If twisting to the end wilfully, it may lead to power

the cable clip.

wire protective cover damage.

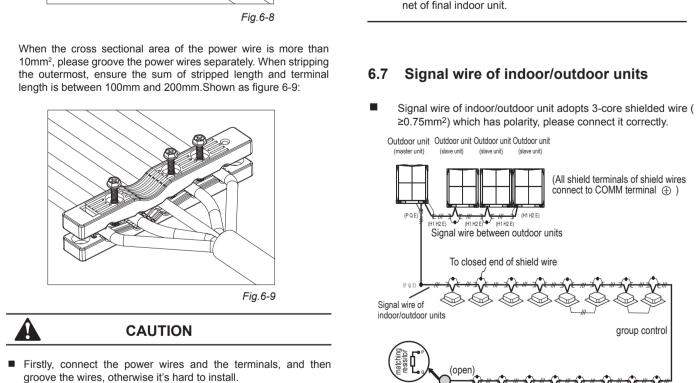




The indoor unit at the terminal of communication system should

Fig.6-10

parallel connect a impedance between port P and port Q.



Branch Box	All dial switch to indoor and outdoor unit have bee according to the Technical Requirement of Production
Outdoor unit(master unit)  Outdoor unit(slave unit)  Outdoor unit(slave unit)  Signal wire between indoorluddoor unit  Indoor unit  Indoor unit  Indoor unit  Indoor unit  Signal wire between indoorluddoor unit  Indoor unit  In	7.3 Fill the name of connected systems between more indoor units and outdoor unit, select names from system and record them on the nameplate on the electric control box cover.    Model(indoor unit)
7. TRIAL RUN	

Power(380-415V 3N~ 50Hz/60Hz) L1L2L3 N

Branch Box	<ul> <li>All dial switch to indoor and outdoor unit have bee according to the Technical Requirement of Produce</li> </ul>
Outdoor unit(master unit)  Outdoor unit(slave unit)  Outdoor unit(slave unit)  Outdoor unit(slave unit)  A B C D B  Wire controller  Outdoor unit(slave unit)  Outdoor unit(slave unit)  A B C D B  Wire controller  Outdoor unit(slave unit)  Outdoor unit(slave unit)  Outdoor unit(slave unit)  A B C D B  Wire controller  Wire controller  Fig. 6-11	To clearly identify the connected systems betwee more indoor units and outdoor unit, select names for system and record them on the nameplate on the electric control box cover.    Model(indoor unit)
7. TRIAL RUN	

Signal wire between indoor units  Signal	7.3 Fill the name of connected system  To clearly identify the connected systems between two or more indoor units and outdoor unit, select names for every system and record them on the nameplate on the outdoor electric control box cover.  Model(indoor unit)  Room Name Eg: Indoor unit (A) of the first system on second floor is recorded as:-2F-1A
7. TRIAL RUN	Fig.7-1
7.1 Inspection and confirmation before commissioning	7.4 Caution on refrigerant leakage
Check and confirm that refrigeration pipe line and communication wire with indoor and outdoor unit have been connected to the same refrigeration system.	<ul> <li>This air conditioner adopts R410A as refrigerant, which is safe and noncombustible.</li> <li>The room for air conditioner should be big enough that</li> </ul>

	Fig.6-11	
7.	TRIAL RUN	
7.1	Inspection and confirmation before commissioning	7
•	Check and confirm that refrigeration pipe line and communication wire with indoor and outdoor unit have been connected to the same refrigeration system.  Otherwise, operation troubles shall happen.	
-	Power voltage is within ±10% of rated voltage.	
•	Check and confirm that the power wire and control wire are correctly connected.	'
-	Check whether wire controller is properly connected.	
	Before powering on, confirm there is no short circuit to	

	Power voltage is within ±10% of rated voltage.	_
•	Check and confirm that the power wire and control wire are correctly connected.	•
•	Check whether wire controller is properly connected.	
•	Before powering on, confirm there is no short circuit to each line.	
•	Check whether all units have passed nitrogen pressure-keeping test for 24 hours with R410A: 40kg/cm <sup>2</sup> .	
•	Confirm whether the system to debugging has been carried out vacuum drying and packed with refrigeration as-required.	
7.2	Preparation before debugging	
•	Calculating the additional refrigerant quantity for each set of unit according to the actual length of liquid pipe.	_

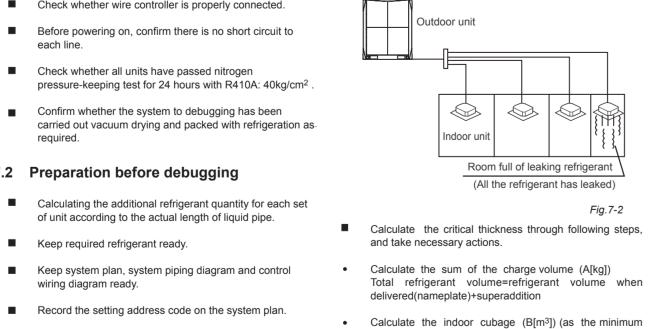
 Turn on power switches outdoor unit in advance, and keep connected for above 12 hours so that heater heating up

Keep required refrigerant ready.

refrigerant oil in compressor.

wiring diagram ready.

Installation manual



Calculate the refrigerant thickness.

valve and air balance valve totally. If the above valves do not

be turned on totally, the unit should be damaged.

refrigerant leakage can not reach the critical thickness.

Critical thickness----the max thickness of Freon without

Besides this, you can take some action on time.

any harm to person. R410A critical thickness:

0.42 [ kg/m<sup>3</sup>]

