INSTALLATION MANUAL

	—
Floor-Standing	IVn
i ioor-otanung	IYP
0	<i></i>

		Thank you very muc	h for purchasing our air conditioner,	
Before using	your air conditioner, plea	se read this manual care	efully and keep it for future reference.	

6. OUTDOOR UNIT INSTALLATION	Side air outlet outdoor unit	7. INSTALL THE CONNECTING PIPE	How to take indoor unit apart to connect	2 Connect the indoor unit at first, then the outdoor Table 7-3	8. CONNECT THE DRAIN PIPE	For power details of the air conditioner refer to the rating plate of the product.
6.1 Installation Place	(Wall or obstacle)	Check whether the height drop between the indoor unit and	the pipes 1 Open the frant panel		Manifold valve Multi-meter Pressure meter Multi-meter Pressure meter Multi-meter Pressure meter Multi-meter Pressure meter Multi-meter Pressure meter	5 For any question contact your local dealer.
The outdoor unit should be installed invvv the location that meets the following requiements:	Air inlet	outdoor unit, the length of refrigerant pipe, and the number of the bends meet the following requirements:	 Slide the two stoppers on the left and right sides inword until they click .(<i>Refer to Fig.7-1</i>) 	Bend the pipe with thumb 06.4 $5.4 \sim 6.6$ Hexagonal $13.5 \sim 16.5$	-76 cmHg Lo-lever Hi-lever The outlet has PTI screw bread, Please use sealing materials Charge hose Charge hose and pipe sheath(fitting) when connecting PVC pipes.	Seal Drain joint The base pan hole 9.1 Connect the cable
 There is enough room for installation and maintenance. The air outlet and the air inlet are not impeded, and can 		Table 7-1 Capacity(Btu/h) 12000 18000		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Seal Drain joint of outdoor unit of outdoor un
not be reached by strong wind. It must be a dry and well ventilating place.		Maintain channel The max height drop 5m 10m >60cm P The length of refrigerant pipe Less than 15m Less than 20m		The bending angle should not exceed 90. The bending angle	Lo-lever Fig.7-11	(Refer to Fig.9-1)
• The support is flat and horizontal and can stand the weight of the outdoor unit. And will no additional noise or		The length of refrigerant pipe Less than 15m Less than 20m The number of bends Less than 5 Less than 8		Bending position is preferably in the middle of the bendable pipe. The larger the bending radius the better it	The drain pipe of indoor unit must be heat insulated, or it will condense dew, as well as the connections of the indoor unit.	The base pan prain joint Fig.8-2 Installation bearer of sensing device
vibration. Vour neighborhood will not feel uncomfortable with the		Fig.6-4 7.1 The Procedure of Connecting Pipes	Fig.7-3	 bo not bend the pipe more than three times. CAUTION 	 Hard PVC binder must be used for pipe connection, and make sure there is no leakage. 	NOTE
 noise or expelled air. It is easy to install the connecting pipes or cables. 	Fig.6-2 NOTE		 How to take outdoor unit apart to connect the pipes 	• When connecting the flare nut, coat the flare both inside and outside with either oil or ester oil and initially tighten	• With the connection part to the indoor unit, please be noted not to impose pressure on the side of indoor unit pipes.	All the pictures in this manual are for explanation purpose only.
 Determine the air outlet direction where the discharged air is not blocked. 	All the pictures in this manual are fo	explanation All field piping must be provided by a licensed	Remove the water tray(Refer to Fig.7-4)	by hand 3 or 4 turns before tighting firmly. After tightening the cap, check that no refrigerant leaks arepresent.	Refrigerant cannot be charged until field wiring has been When the declivity of the drain pipe downwards is over 1/100, there should not be any winding	They may be slightly different from the air conditioner you purchased(depend on model). The actual shape shall prevail.
 There is no danger of fire due to leakage of inflammable gas. 	purpose only. They may be slightly differe conditioner you purchased(depend on moo shape shall prevail.	relevant local and national codes. Do not let air, dust, or other impurities fall in the pipe			Befrigerant may only be charged after performing the leak • The total length of the drain pipe when pulled out traversely	
 The piping length between the outdoor unit and the indoor unit may not exceed the allowable piping length. 		system during the time of installation. The connecting pipe should not be installed until the indoor and outdoor units have been fixed already.			test and the vacuum pumping. When charging a system, care shall be taken that its	
 In the case that the installation place is exposed to strong wind such as a seaside, make sure the fan operating properly by putting the unit lengthwise along the wall or 	6.2 Moving and installationSince the gravity center of the unit is	Keep the connecting pipe dry, and do not let moisture in during installation.not at its physicalExecute heat insulation work completely on both sides	Fig.7-1	Fig.7-7	maximum permissible charge is never exceeded, in view of the danger of liquid hammer.	9. WIRING
 If possible, do not install the unit where it is exposed to 	center, so please be careful when lifting it	vith a sling. of the gas piping and the liquid piping. Otherwise, this can sometimes result in water leakage.		Be sure to use both a spanner and torque wrench together when connecting or disconnecting pipes to /from the unit. Seal shaft hexagon hole Fig.7-9	Charging with an unsuitable substance may cause explosions and accidents, so always ensure that the appropriate	CAUTION CAUTIO
direct sunlight.If necessary, install a blind that does not interfere with the	 Never hold the inlet of the outdoor unit deforming. 	1 Drill a hole in the wall (suitable just for the size of the wall			refrigerant is charged. Insulating Downward declivity Insulating	The appliance shall be installed in accordance with natioanl wiring regualtions. protection board.) (Refer to Fig.9-2)
air flow.During the heating mode, the water drained off the	 Do not touch the fan with hands or other o Do not lean it more than 45[°], and do not lag 	its cover.	2 Remove the front panel .	Using the vacuum pump	Always use protective gloves and protect your eyes when	The air conditioner should use separate power supply with rated voltage.
outdoor unit ,The condensate should be well drained away by the drain hole to an appropriate place, so as not to interfere other people.	Make concrete foundation accoding to the	2 Bind the connecting pipe and the cables together tightly with binding tapes.	 Remove the string.(<i>Refer to Fig.7-2</i>) Allowing the front panel to fall forward will enable you to remove it. 	Loosen and remove the maintenance nuts of stop valves A and B, and connect the charge hose of the manifold valve to	charging refrigerant.	The external power supply to the air conditioner should have ground wiring, which is linked to the ground wiring
 Select the position where it will not be subject to snow drifts, accumulation of leaves or other seasonal debris. If 	 the outdoor units.(<i>Refer to Fig.6-6</i>) Fasten the feet of this unit with bolts firm 	Pass the bound connecting pipe through the wall conduct from outside. Be careful of the pipe allocation to do on damage to the tubing.	to be	<i>Fig.7-8</i> <i>the service port of stop valve A. (Be sure that stop valves A and B are both closed)</i>	■ The outdoor unit is factory charged with refrigerant. Calculate the added refrigerant according to the diameter and the length of the liquid side pipe of the outdoor unit indoor unit.	of the indoor and outdoor unit. The wiring work should be done by qualified persons
unavoidable, please cover it with a shelter.Locate the outdoor unit as close to the indoor unit as	collapsing in case of earthquake or str <i>Fig.6-6)</i>		Fig.7-4	CAUTION 2 Connect the joint of the charge hose with the vacuum pump.	length of the liquid side pipe of the outdoor unit/indoor unit Put as deep as possible (about 10cm)	according to circuit drawing.
possible.If possible, please remove the obstacles nearby to		4 Expel the air with a vacuum pump. Refer to "How to expel the	 How to Connect the pipes 	Too large torque will harm the bellmouthing and too small will cause leakage. Please determine the torque Too large torque will harm the bellmouthing and too small will cause leakage. Please determine the torque Turn on the vacuum pump. At the beginning of pumping,	Table 7-4	An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device(RCD)with the rating of above 10mA shall be
prevent the performance from being impeded by too little of air circulation.	E C C C C C C C C C C C C C C C C C C C	air with a vacuum pump" for details.	I Flaring Cut a pipe with a pipe cutter. (Refer to Fig.7-5)	according to Table 4. After the connecting work is finished, be sure to check After the connecting work is finished, be sure to check	R(g) D(mm) Ø6.4 Ø9.5 Ø12.7 L(m) Iower than 1/100 VP30 Fig. 8.1	incorporated in the fixed wiring according to the national Protection board rule.
• The minimum distance between the outdoor unit and obstacles described in the installation chart does not mean that the same is applicable to the situation of an		refrigerant pipe connecting the indoor unit with the outdoor unit in fluent flow.		that there is no gas leak. fasten the maintenace nut.	Less than 5m R22	Be sure to locate the power wiring and the signal wring well to avoid cross-disturbance.
airtight room. Leave open two of the three directions.(<i>Refore to Fig.6-4</i>)		6 Check the leakage. Check all the joints with the leak detector or soap water.		 How to expel the air with a vacuum pump Stop valve operation introduction When the pumping has finished, close the Lo-lever of the manifold valve completely and turn off the vacuum pump.Make pumping for 15 minutes or more and check that 	Added Refrigerant When Over 5m(One-way) R410A 11g/m×(L-5) 30g/m×(L-5) 60g/m×(L-5) R410A 11g/m×(L-5) 30g/m×(L-5) 60g/m×(L-5)	Do not turn on the power until you have checked or NOTE
		Fig.6-5 7 Cover the joints of the connecting pipe with the soundproof / insulating sheath (fittings), and bind it well with the tapes to	Fig.7-5	1. Opening stop valve 6 Loosen and remove the cap of stop valves A and B to open	 Check whether the drainpipe is unhindered. New built house should have this test done before 	All the pictures in this manual are for explanation purpose only. They may be slightly different from the air
		prevent leakage.	 Insert a flare nut into a pipe and flare the pipe. Refer to Table 7-2 for the dimension of flare nut spaces. 	counterclock-wise with the hexagon wrench. stop valve A and B completely, then fasten the cap.	R(g): Additional refrigetant to be charged paving the ceiling. L(m): The length of the refrigerant pipe(one-way) D(mm): Liquid Side Piping Diameter	Remark per EMC Directive 89/336/EEC For to prevent flicker impressions during the start of the
	Fig.6-3 NOTE	CAUTION	Fig.7-2 Table 7-2	2. Turn it unit the shart stops. Do not apply excessive force to the stop valve. Doing so may breakthe valve body, as the valve is not a backseat type. Always use the special to the valve and fasten the nut.	Instantine drain joint of the outdoor unit Fit the seal into the drain joint, then insert the drain joint into the	compressor (technical process) ,following installation conditions do apply.
Table 6-1	MM All the pictures in this manual are fo purpose only. They may be slightly differe conditioner you purchased(depend on mod	t from the air parts of the flare pipe joints and refrigerant pipe on the	Pipe gauge Tightening torque Flare dimensin A max Flare shape Ø6.4 15~16 N.m 8.3 8.7	3. Make sure to tighten the cap securely.	If a negative result is gotten for R from the formule at [Locally purchased], in case of the condensate draining off the outdoor.	1 The power connection for the air conditioner has to be done at the main power distribution. The distribution has
<i>Fig.6-1</i> <i>Fig.6-1</i> <i>CAPACITY</i> (Btu/h) <i>A B C D</i>	E F H shape shall prevail.	el). The actual liquid-side and the gas-side. Ensure that there is no gap between them. Incomplete insulation may cause water condensation.	3 Remove the face plate . 00.4 (153~163 kgf.cm) 0.3 0.7 • Remove the four screws. (Refer to Fig. 7-2) 09.5 25~260 kgf.cm) 12.0 12.4	 Closing stop valve Remove the cap and turn the valve clockwise with the 	right, no refrigam needs to be added nor removed.	to be of a low impedance, normally the required impedance reaches at a 32 A fusing point.
NOTE 12000 780 548 266 300 2 All the pictures in this manual are for explanation 18000 842 560 335 360 3			 Remove the four screws. (Refer to Fig.7-2) Opening bottom of face plate for a angle that is 30 degrees, then the top of face plate will be take up. (Refer to 45~47 Nm) 	 hexagon wrench. 2. Securely tighten the valve until the shaft contacts the main headward 		 No other equipment has to be connected with this power line.
purpose only. They may be slightly different from the air conditioner you purchased(depend on model). The actual shape shall prevail.			\emptyset 15.9 $45 \sim 47$ N.m ($459 \sim 480$ kgf.cm) 18.6 19.0 \emptyset 19.1 $65 \sim 67$ N.m ($65 \sim 67$ A.m) 22.9 23.3	Fig.7-10 Make sure to tighten the cap securely.		3 For detailed installation acceptance please refer to your power supplier, if restrictions do apply for products like washing machines, air conditioners or electrical ovens.
	installation manual		(663~684 kgt.cm)	For the tightening torque, refer to the table below.		
	installation manual installation manual 6		installation manual 7	installation manual 8	installation manual 9	installation manual 10

installation manual

CONTENTS	PAGE	Install according to this installation instructions strictly. If installation is defective, it will cause water leakage, electrical shock fire.
PRECAUTIONS INSTALLATION INFORMATION ACCESSORIES INSPECTING AND HANDLING THE UNIT INDOOR UNIT INSTALLATION		When installing the unit in a small room, take measures 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.
OUTDOOR UNIT INSTALLATION INSTALL THE CONNECTING PIPE CONNECT THE DRAIN PIPE	6	Use the attached accessories parts and specified parts for installation. otherwise, it will cause the set to fall, water leakage, electrical shock fire.
WIRING TEST OPERATION		Install at a strong and firm location which is able to withstand the set's weight. If the strength is not enough or installation is not properly done, the set will drop to cause injury.
		The appliance shall not be installed in the laundry.
		Before obtaining access to terminals, all supply circuits must be disconnected.
		The appliance must be positioned so that the plug is accessible.
1. PRECAUTIONS		The enclosure of the appliance shall be marked by word, or by symbols, with the direction of the fluid flow.

For electrical work, follow the local national wiring Be sure to be in conformity with the local, national and standard, regulation and this installation instructions. An international laws and regulations. independent circuit and single outlet must be used. If electrical circuit capacity is not enough or defect in Read "PRECAUTIONS" carefully before installation. electrical work, it will cause electrical shock fire.

The following precautions include important safty items. Use the specified cable and connect tightly and clamp Observe them and never forget. the cable so that no external force will be acted on the terminal Keep this manual with the owner's manual in a handy place If connection or fixing is not perfect, it will cause heat-up or for future reference. fire at the connection.

Wiring routing must be properly arranged so that control The safty precautions listed here are divided into two categories. In board cover is fixed properly. either case, important safty information is listed which must be read If control board cover is not fixed perfectly, it will cause heat-up at connection point of terminal, fire or electrical shock. WARNING

Failure to observe a warning may result in death. If the supply cord is damaged, it must be replaced by the manufacture or its service agent or similarly qualifued person in order to avoid a hazard. CAUTION _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

carefully.

the owner's manual for future reference.

the equipment.

install, repair or service the equipment.

An all-pole disconnection swith having a contact Failure to observe a caution may result in injury or separation of at least 3mm in all poles should be damage to the equipment. connected in fixed wiring. After completing the installation, make sure that the unit operates

When carrying out piping connection, take care not to let properly during the start-up operation. Please instruct the customer air substances go into refrigeration cycle. on how to operate the unit and keep it maintained. Also, inform Otherwise, it will cause lower capacity, abnormal high customers that they should store this installation manual along with pressure in the refrigeration cycle, explosion and injury.

Do not modify the length of the power supply cord or use of extension cord, and do not share the single outlet with WARNING other electrical appliances. Otherwise, it will cause fire or electrical shock. Be sure only trained and qualified service personnel to

Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes. Improper installation work may result in the equipment falling Improper installation, repair, and maintenance may result in and causing accidents. electric shocks, short-circuit, leaks, fire or other damage to

If the refrigerant leaks during installation, ventilate the 2. INSTALLATION INFORMATION area immediately. Toxic gas may be produced if the refrigerant comes into the

To install properly, please read this "installation manual" at The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper The air conditioner must be installed by qualified persons. tube. After completing the installation work, check that the
 When installing the indoor unit or its tubing, please follow refrigerant does not leak. this manual as strictly as possible. Toxic gas may be produced if the refrigerant leaks into the room and comes into contact with a source of fire, such as a If the air conditioner is installed on a metal part of the building, it must be electrically insulated according to the fan heater, stove or cooker. relevant standards to electrical appliances.

When all the installation work is finished, please turn on CAUTION the power only after a thorough check. Regret for no further announcement if there is any change Ground the air conditioner.

of this manual caused by product improvement. Do not connect the ground wire to gas or water pipes, lightning rod or a telephone ground wire. Incomplete _ grounding may result in electric shocks. INSTALLATION ORDER Be sure to install an earth leakage breaker. Select the location; Failure to install an earth leakage breaker may result in electric shocks. Install the indoor unit;

Connect the outdoor unit wires , then connect the indoor Install the outdoor unit; You are not allow to connect the air conditioner with the Install the connecting pipe ; power source until wiring and piping the air conditioner is Connect the drain pipe; While following the instructions in this installation

 Wiring; manual, install drain piping in order to ensure proper drainage and insulate piping in order to prevent Test operation. Improper drain piping may result in water leakage and

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 or noise. Depending on the radio waves, a distance of 1 meter may not be sufficient enough to eliminate the noise.

The appliance is not intended for use by young children or infirm persons without supervision. Don't install the air conditioner in the following locations:

There is petrolatum existing. There is salty air surrounding (near the coast). There is caustic gas (the sulfide, for example) existing in the air (near a hot spring).

The Volt vibrates violently (in the factories). In buses or cabinets. In kitchen where it is full of oil gas. There is strong electromagnetic wave existing.

place contacting with fire.

unit wires.

done.

installation manual

condensation.

property damage.

There are inflammable materials or gas. There is acid or alkaline liquid evaporating. Other special conditions.

3. ACCESSORIES

Please check whether the following fittings are of full scope. If there are some spare fittings , please restore them carefully.



Both side covers may be installed on 42K-48K unit already, or be put into the accessories.

Cautions on remote controller installation:

- Never throw or beat the controller. Before installation, operate the remote controller to determine its location in a \square reception range.
- Keep the remote controller at least 1m apart from the nearest TV set or stereo equipment. (it is necessary to prevent image disturbances or noise interferences.)
- Do not install the remote controller in a place exposed to direct sunlight or close to a heating source, such as a stove.
- Note that the positive and negative poles are right positions when loading batteries.
- This manual is subject to changes due to technological improvement without further notices.

Fig.3-1

Remote

Mounting screw B ST2.9x10-C-H

C THE C

Remote controller holder



generated, even if 1 meter is kept.)

4. INSPECTING AND HANDLING THE UNIT

At delivery, the package should be checked and any damage

2 Choose on before hand the path along which the unit is

4 When lifting the unit , always use protectors to prevent

belt damage and pay attention to the position of the

The indoor unit should be installed in a location that meets

There is enough room for installation and maintenance.

The outlet and the inlet are not impeded, and the

The connecting pipe and drainpipe could be extracted out

CAUTION

Keep indoor unit, outdoor unit, power supply wiring and transmission wiring at least 1 meter away from

televisions and radios. This is to prevent image

interference and noise in those electrical appliances.

(Noise may be generated depending on the

conditions under which the electric wave is

3 Move this unit as originally package as possible.

5. INDOOR UNIT INSTALLATION

Keep the unit upright in order to avoid compressor

should be reported immediately to the service agent.

1 Fragile, handle the unit with care.

damage

to be brought in.

5.1 Installation place

easily.

the following reauirements:

(Refer to Fig.5-1 and Fig.5-2)

influence of external air is the least.

There is no direct radiation from heaters.

The air flow can reach throughout the room.

unit's centre of gravity.

When handling the unit, take into account the following:



Hang the indoor unit on the hook.

body must install vertically.)

5.2 Install the main body

• Fix the hook with tapping screw onto the wall.(Refer to Fig.5-3)

୍ଦ୍ରତି

(The bottom of body can touch with floor or suspended, but the

195mm















210mm

Fig.5-2

Washer

Fig.5-3

Fig.5-4

installation manual

Fig.5-1



The Specification of Power

CONNECTING WIRING

(mm²)

Wiring figure

■ Fig.9-4

TYPE(for R410a)

CIRCUIT BREAKER/FUSE (A)

NDOOR UNIT POWER WIRING(mm²)

DOOR/OUTDOOR OUTDOOR UNIT POV

PHASE

GROUND WIRING

STRONG ELECTRIC SIGNAL

WEAK ELECTRIC

Table 9-2



12000Btu/h(1 PHASE)

… ∞

Air Conditioner Link-circuit (For R410a,Cooling& Heating)

Fig.9-5

Fig.9-6



Connect the connective cables to the terminals as identified 10. TEST OPERATION with their respective mached numbers on the terminal block of 1 The test operation must be carried out after the entire installation has been completed. Re-install the Indoor unit and outdoor unit

and indoor units.

9.2 The Specification of Power (Refer to Table 9-2) **9.3 Wiring figure** (Refer to Fig9-4~Fig9-6)

indoor and outdoor units.

2 Please confirm the following points before the test operation: The indoor unit and outdoor unit are installed properly. Tubing and wiring are correctly completed. The refrigerant pipe system is leakage-checked. The drainage is unimpeded. The heating insulation works well. The ground wiring is connected correctly. The length of the tubing and the added stow capacity of the refrigerant have been recorded. The power voltage fits the rated voltage of the air conditioner.

> • The gas-side and liquid-side stop valves are both opened. • The air conditioner is pre-heated by turning on the power. 3 According to the user's requirement, install the remote controller frame where the remote controller's signal can reach the indoor unit smoothly.

There is no obstacle at the outlet and inlet of the outdoor

4 Test operation

Set the air conditioner under the mode of "COOLING" with the remote controller, and check the following points. If there is any malfunction, please resolve it according to the chapter "Troubleshooting" in the "Owner's Manual".

• 1) The indoor unit a. Whether the switch on the remote controller works well. b. Whether the buttons on the remote controller works well.

c. Whether the air flow louver moves normally. d. Whether the room temperature is adjusted well. e. Whether the indicator lights normally. f. Whether the temporary buttons works well. g. Whether the drainage is normal. h. Whether there is vibration or abnormal noise during operation.

I. Whether the air conditioner heats well in the case of the HEATING/COOLING type.

 2) The outdoor unit a. Whether there is vibration or abnormal noise during operation. b. Whether the generated wind, noise, or condensed of by the air conditioner have influenced your neighborhood. c. Whether any of the refrigerant is leaked.

CAUTION

A protection feature prevents the air conditioner from being activated for approximately 3 minutes when it is restarted immediately after shut off.



Installing wiring chart, refer to link circuit chart for details.

12000Btu/h 18000Btu/h (Cooling & Heating) (Cooling & Heating)

1-PHASE

30/25

3x2.5

2.5

4x2.5

1-PHASE

20/16

3x1.5

1.5

4x1.5

FREQUENCY AND VOLT 220-240V~, 50Hz 220-240V~, 50Hz

Unit ------Strong elec-signal link wiring Ground wiring $\left(\stackrel{\perp}{=} \right)$

 Ground the air conditioner properly in case to affect its anti-interference function

(For 12000Btu/h and 18000Btu/h)



CAUTION

INDOOR UNIT

POWER:

220-240V 50Hz

3-core cable 3x1.5mm²

KT1 ©©©©®

4-core cable 4x1.5mm²

When wiring, please choose the corresponding chart, or it may cause damage.

18000Btu/h(1 PHASE) Air Conditioner Link-circuit (For R410a,Cooling& Heating)

QS01I-038AW

The design and specifications are subject to change without prior notice for product improvement.Consult with the sales agency or manufacturer for details

202000100268 2011.02.23

installation manual 11

installation manual 12

installation manual

13

己完成试制; 控制版本已走到标准化处; 外机主控板PCB已做回第三版, 已通过接触器测试, 准备委托软硬件测试。