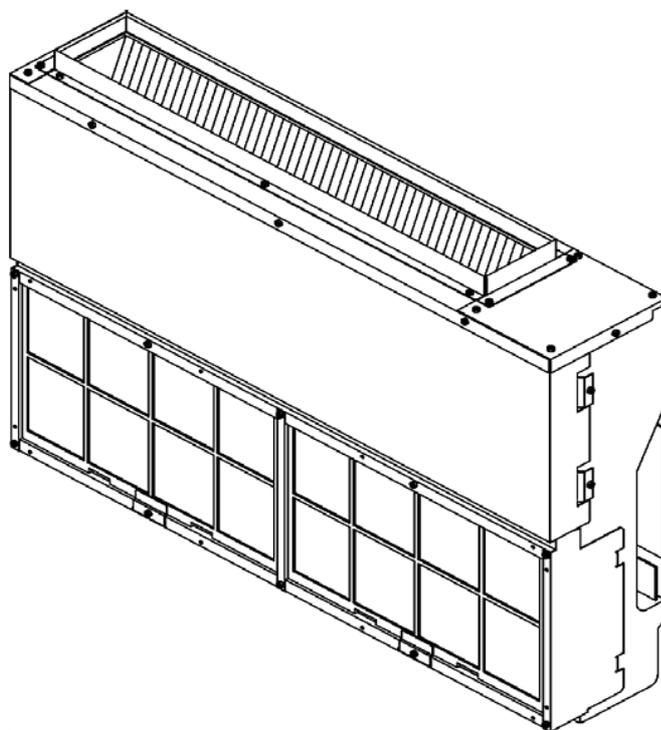


Airwell

**INSTALLATION INSTRUCTIONS
NOTICE D'INSTALLATION
INSTRUCCIONES DE INSTALACION
ISTRUZIONI DI INSTALLAZIONE**



**ST-NDSL P 7R
ST-NDSL P 9R
ST-NDSL P 12R
ST-NDSL P 16R
ST-NDSL P 18R
ST-NDSL P 22R**

EG

F

ES

I

**Split system air conditioner
Climatiseur split system
Acondicionador de air de consola partida sistema split
Condizionatore d'aria split system**

IMPORTANT! Please Read Before Starting

This air conditioning system meets strict safety and operating standards. As the installer or service person, it is an important part of your job to install or service the system so it operates safely and efficiently.

For safe installation and trouble-free operation, you must:

- Carefully read this instruction booklet before beginning.
- Follow each installation or repair step exactly as shown.
- Observe all local, state, and national electrical codes.
- This product is intended for professional use. Permission from the power supplier is required when installing an outdoor unit that is connected to a 16 A distribution network.
- Pay close attention to all warning and caution notices given in this manual.



WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



CAUTION

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

If Necessary, Get Help

These instructions are all you need for most installation sites and maintenance conditions. If you require help for a special problem, contact our sales/service outlet or your certified dealer for additional instructions.

In Case of Improper Installation

The manufacturer shall in no way be responsible for improper installation or maintenance service, including failure to follow the instructions in this document.

SPECIAL PRECAUTIONS

WARNING When Wiring



ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. ONLY A QUALIFIED, EXPERIENCED ELECTRICIAN SHOULD ATTEMPT TO WIRE THIS SYSTEM.

- Do not supply power to the unit until all wiring and tubing are completed or reconnected and checked.
- Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause **accidental injury or death**.
- **Ground the unit** following local electrical codes.
- Connect all wiring tightly. Loose wiring may cause overheating at connection points and a possible fire hazard.

When Transporting

Be careful when picking up and moving the indoor and outdoor units. Get a partner to help, and bend your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut your fingers.

When Installing...

...In a Room

Properly insulate any tubing run inside a room to prevent "sweating" that can cause dripping and water damage to walls and floors.

...In Moist or Uneven Locations

Use a raised concrete pad or concrete blocks to provide a solid, level foundation for the outdoor unit. This prevents water damage and abnormal vibration.

...In an area with High Winds

Securely anchor the outdoor unit down with bolts and a metal frame. Provide a suitable air baffle.

...In a Snowy Area (for Heat Pump-type Systems)

Install the outdoor unit on a raised platform that is higher than drifting snow. Provide snow vents.

When Connecting Refrigerant Tubing

- Ventilate the room well, in the event that refrigerant gas leaks during the installation. Be careful not to allow contact of the refrigerant gas with a flame as this will cause the generation of poisonous gas.
- Keep all tubing runs as short as possible.
- Use the flare method for connecting tubing.
- Apply refrigerant lubricant to the matching surfaces of the flare and union tubes before connecting them, then tighten the nut with a torque wrench for a leak-free connection.
- Check carefully for leaks before starting the test run.

NOTE

Depending on the system type, liquid and gas lines may be either narrow or wide. Therefore, to avoid confusion the refrigerant tubing for your particular model is specified as either "narrow" or "wide" than as "liquid" or "gas."

When Servicing

- Turn the power OFF at the main power box (mains) before opening the unit to check or repair electrical parts and wiring.
- Keep your fingers and clothing away from any moving parts.
- Clean up the site after you finish, remembering to check that no metal scraps or bits of wiring have been left inside the unit being serviced.



CAUTION

- Ventilate any enclosed areas when installing or testing the refrigeration system. Escaped refrigerant gas, on contact with fire or heat, can produce dangerously toxic gas.
- Confirm after installation that no refrigerant gas is leaking. If the gas comes in contact with a burning stove, gas water heater, electric room heater or other heat source, it can cause the generation of poisonous gas.

Check of Density Limit

The room in which the air conditioner is to be installed requires a design that in the event of refrigerant gas leaking out, its density will not exceed a set limit.

The refrigerant (R410A), which is used in the air conditioner, is safe, without the toxicity or combustibility of ammonia, and is not restricted by laws imposed to protect the ozone layer. However, since it contains more than air, it poses the risk of suffocation if its density should rise excessively. Suffocation from leakage of refrigerant is almost non-existent. With the recent increase in the number of high density buildings, however, the installation of multi air conditioner systems is on the increase because of the need for effective use of floor space, individual control, energy conservation by curtailing heat and carrying power, etc.

Most importantly, the multi air conditioner system is able to replenish a large amount of refrigerant compared to conventional individual air conditioners. If a single unit of the multi air conditioner system is to be installed in a small room, select a suitable model and installation procedure so that if the refrigerant accidentally leaks out, its density does not reach the limit (and in the event of an emergency, measures can be made before injury can occur).

In a room where the density may exceed the limit, create an opening with adjacent rooms, or install mechanical ventilation combined with a gas leak detection device. The density is as given below.

Total amount of refrigerant (kg)

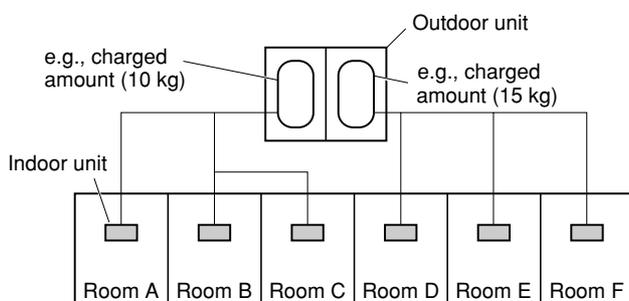
$$\text{Min. volume of the indoor unit installed room (m}^3\text{)} \leq \text{Density limit (kg/m}^3\text{)}$$

The density limit of refrigerant which is used in multi air conditioners is 0.44 kg/m³ (ISO 5149).

NOTE

- If there are 2 or more refrigerating systems in a single refrigerating device, the amount of refrigerant should be as charged in each independent device.

For the amount of charge in this example:

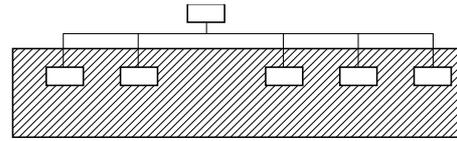


The possible amount of leaked refrigerant gas in rooms A, B and C is 10 kg.

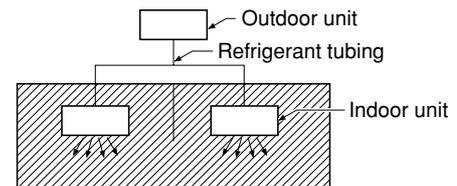
The possible amount of leaked refrigerant gas in rooms D, E and F is 15 kg.

- The standards for minimum room volume are as follows.

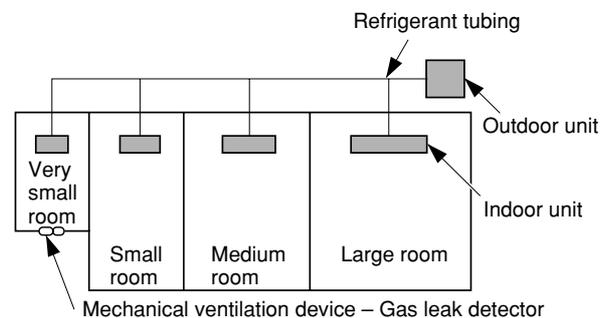
- (1) No partition (shaded portion)



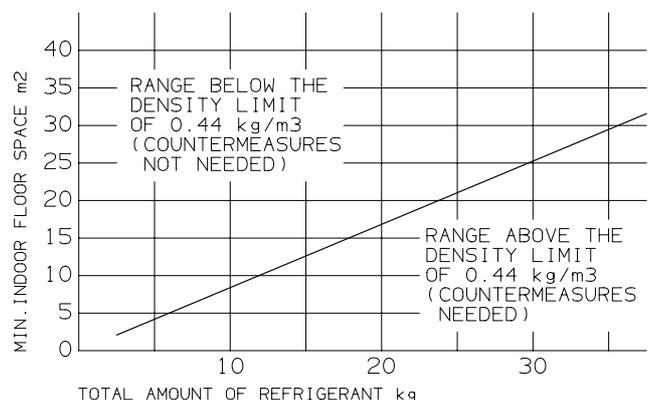
- (2) When there is an effective opening with the adjacent room for ventilation of leaking refrigerant gas (opening without a door, or an opening 0.15% or larger than the respective floor spaces at the top or bottom of the door).



- (3) If an indoor unit is installed in each partitioned room and the refrigerant tubing is interconnected, the smallest room of course becomes the object. But when mechanical ventilation is installed interlocked with a gas leakage detector in the smallest room where the density limit is exceeded, the volume of the next smallest room becomes the object.



- The minimum indoor floor space compared with the amount of refrigerant is roughly as follows: (When the ceiling is 2.7 m high)



CONTENTS

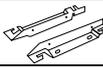
	Page		Page
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1. GENERAL			

This booklet briefly outlines where and how to install the air conditioning system. Please read over the entire set of instructions for the indoor unit and make sure all accessory parts listed are with the system before beginning.

1-1. Tools Required for Installation (not supplied)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Standard screwdriver 2. Phillips head screwdriver 3. Knife or wire stripper 4. Tape measure 5. Carpenter's level 6. Sabre saw or key hole saw 7. Hacksaw | <ol style="list-style-type: none"> 8. Core bits 9. Hammer 10. Drill 11. Tube cutter 12. Tube flaring tool 13. Torque wrench 14. Adjustable wrench 15. Reamer (for deburring) |
|---|--|

1-2. Accessories supplied with the unit

PARTS	FIGURE	Q.TY	PARTS	FIGURE	Q.TY	PARTS	FIGURE	Q.TY
RAWL PLUG		2	BOLT M8		4	FLANGE		2 + 2
BRACKET		2	TAPPING SCREW 4x30		2	SCREW 4,2 x 6,5		12
WASHER SPRING WASHER		4 + 4	BRACKET		1			

1-3. Type of Copper Tube and Insulation Material

If you wish to purchase these materials separately from a local source, you will need:

1. Deoxidized annealed copper tube for refrigerant tubing.
2. Foamed polyethylene insulation for copper tubes as required to precise length of tubing. Wall thickness of the insulation should be not less than 8 mm.
3. Use insulated copper wire for field wiring. Wire size varies with the total length of wiring. Refer to **4. Electrical Wiring** for details.



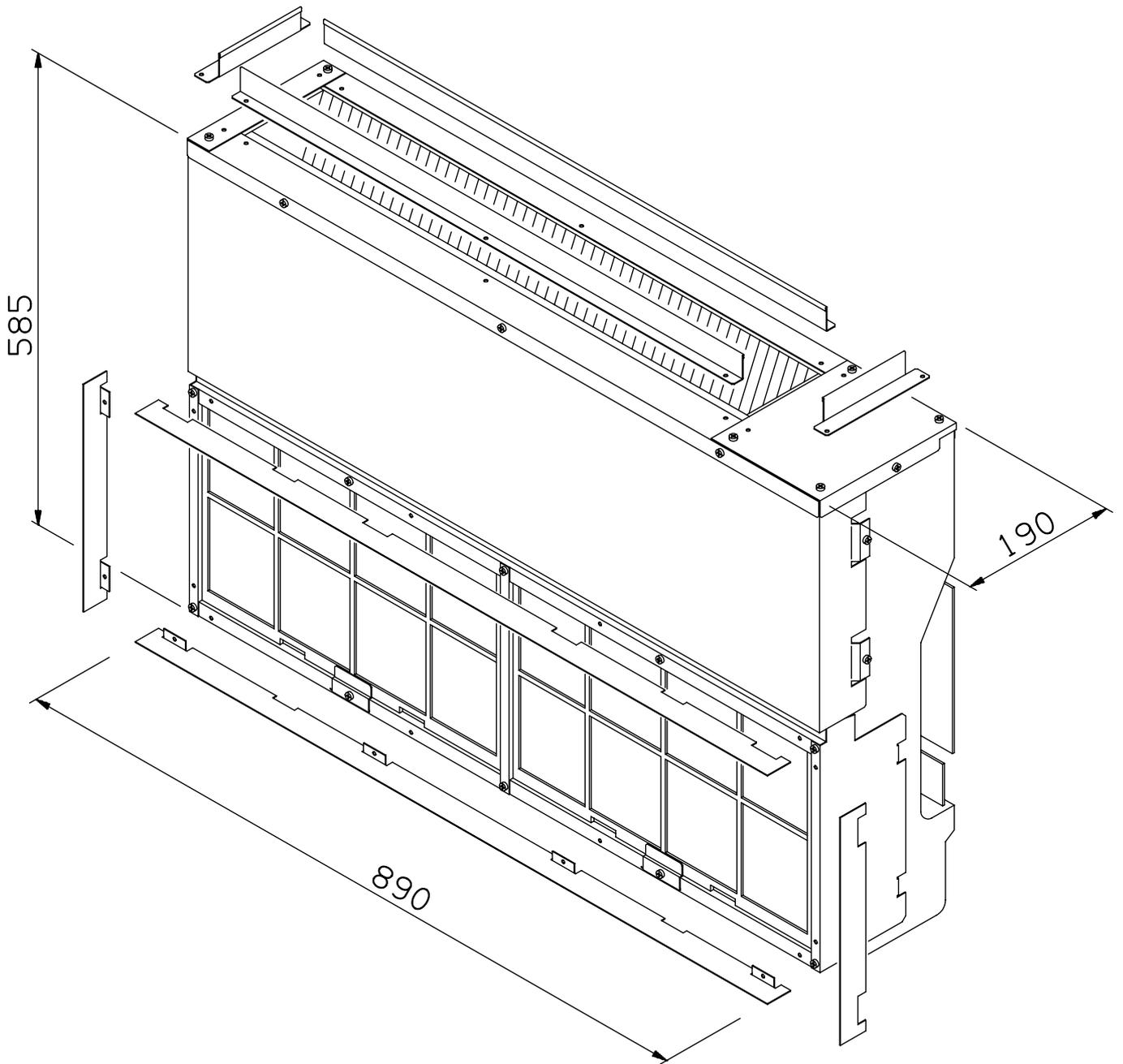
CAUTION

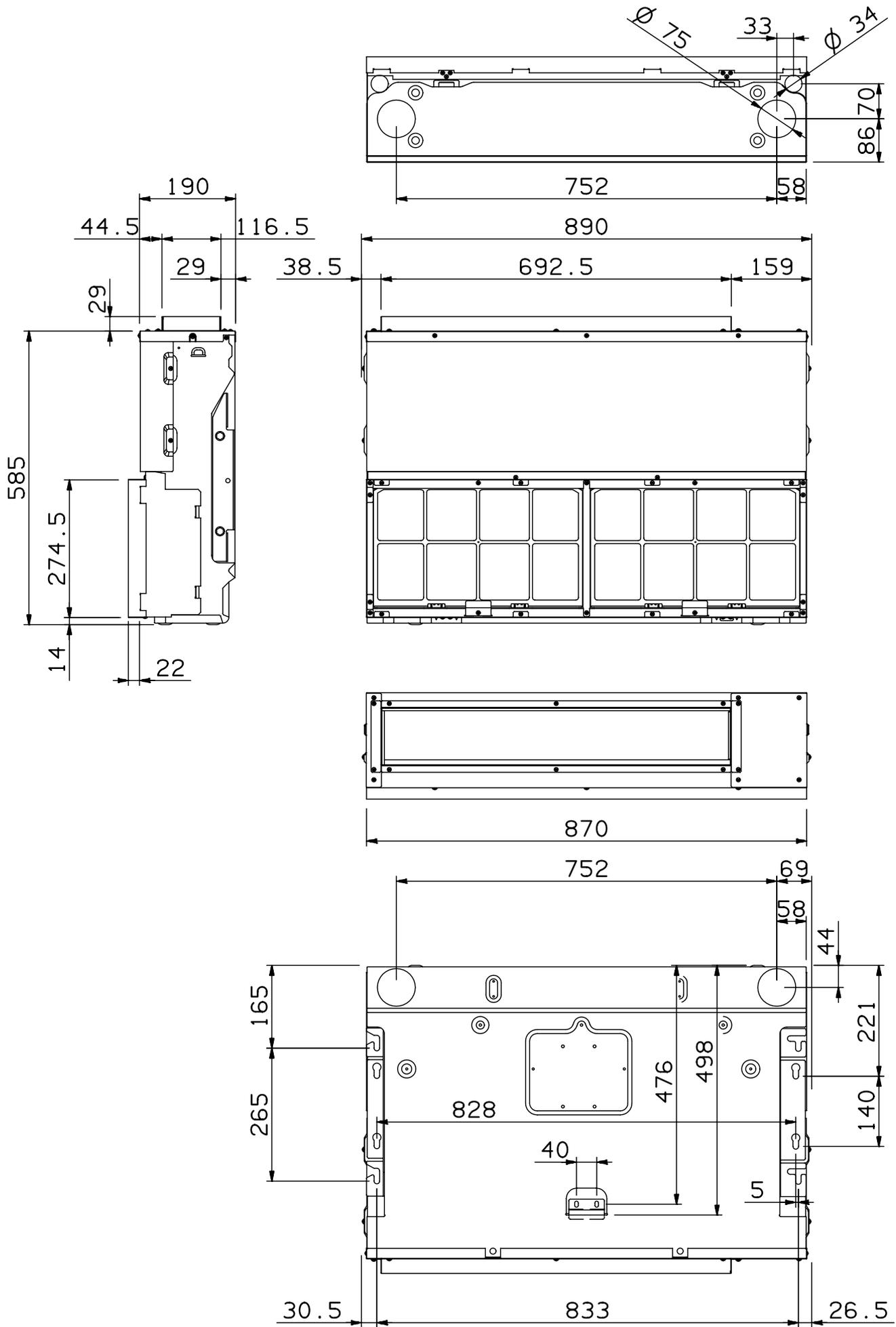
Check local electrical codes and regulations before obtaining wire. Also, check any specified instructions or limitations.

1-4. Additional Materials Required for Installation

1. Refrigeration (armored) tape
2. Insulated staples or clamps for connecting wire (See your local codes.)
3. Putty
4. Refrigeration tubing lubricant
5. Clamps or saddles to secure refrigerant tubing
6. Scale for weighing

2. DIMENSIONS (mm)



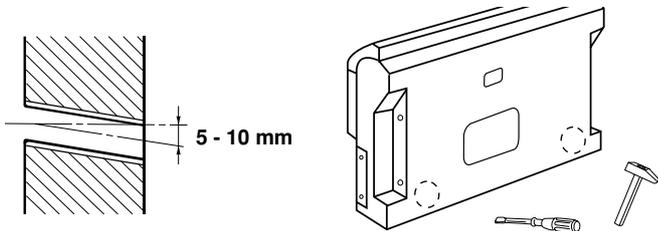


3. HOW TO INSTALL THE UNIT

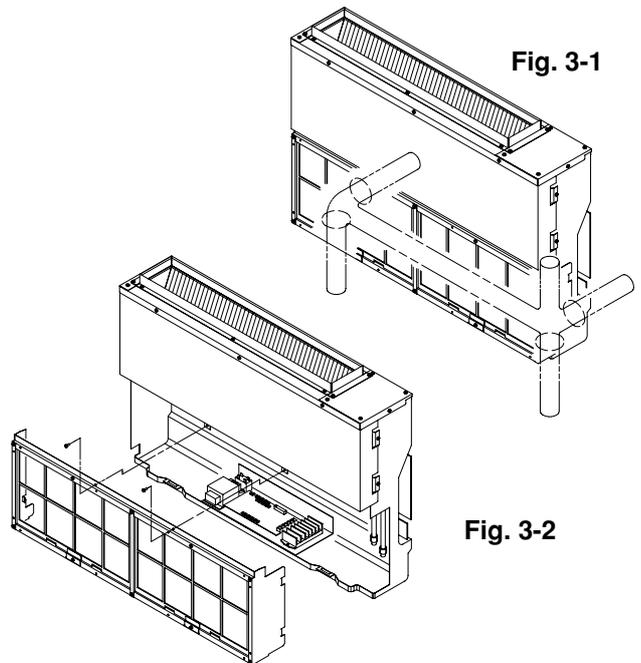
The unit can be connected in four different positions: at the right-back side, at the left-back side, at the bottom, on the right or on the left. (Fig. 3-1)

Drill a 80 mm hole, insert a PVC pipe.

Open a pre-punched hole for the pipe passage (work from the outside).



Remove the suction grille (2 screws) to operate on the connecting pipes or on the electric junction box. (Fig. 3-2)

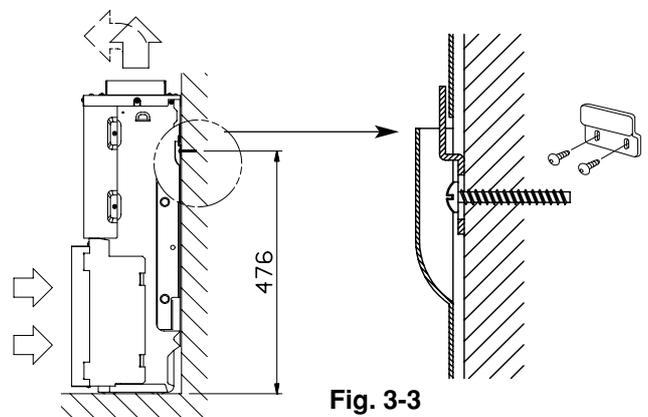
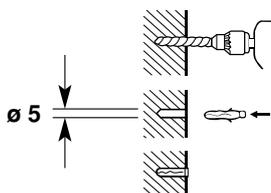


Floor installation. (Fig. 3-3)

Predispose the fixing of the bracket.

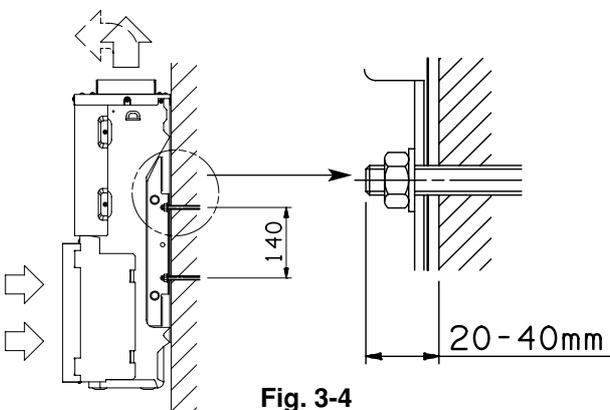
Check if the quantity and the rawl plugs type supplied are the proper ones for fixing the unit on the wall.

Attach the bracket to the wall with the screws, but do not tighten the screws all the way, so that you can move the bracket for final adjustment. Adjust the bracket as shown in the figure, then finish tightening the screws. Hang the unit on the bracket as shown in the figure.



Wall installation. (Fig. 3-4)

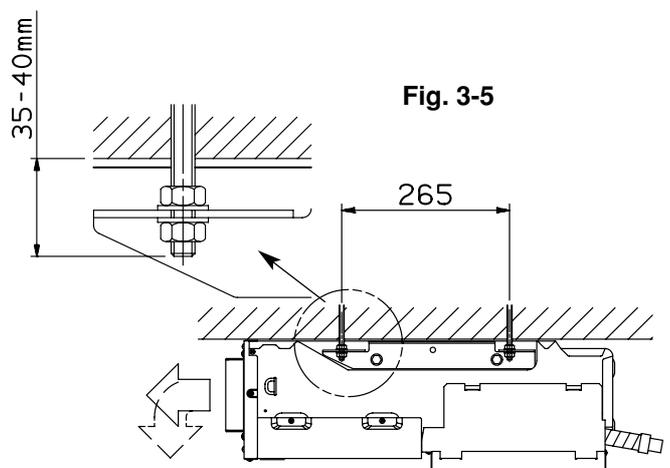
Use rawl plugs suitable to the wall consistence and four threaded bars of suitable length.



Under ceiling installation. (Fig. 3-5)

Use rawl plugs suitable to the wall consistence and four threaded bars of suitable length. (not supplied).

Open a pre-punched hole for the pipe passage (back or bottom panel) and the condensate drain hole. Fix the unit under the ceiling.

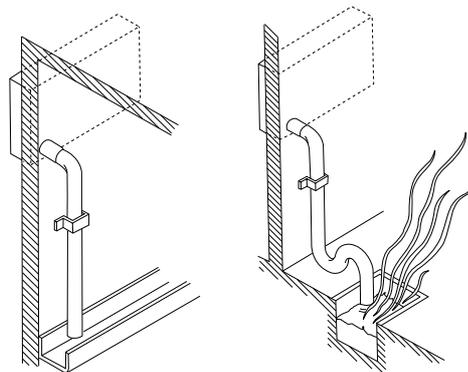


In this case the drainage tube connection cannot be executed on the back.

Utilise the aperture, on the right or on the left, between the suction grille and the structure.

Predispose the condensate drain pipe with a positive slope to the outside.

Convey the condensate to the outside with a positive slope, form a trap at the end if necessary.

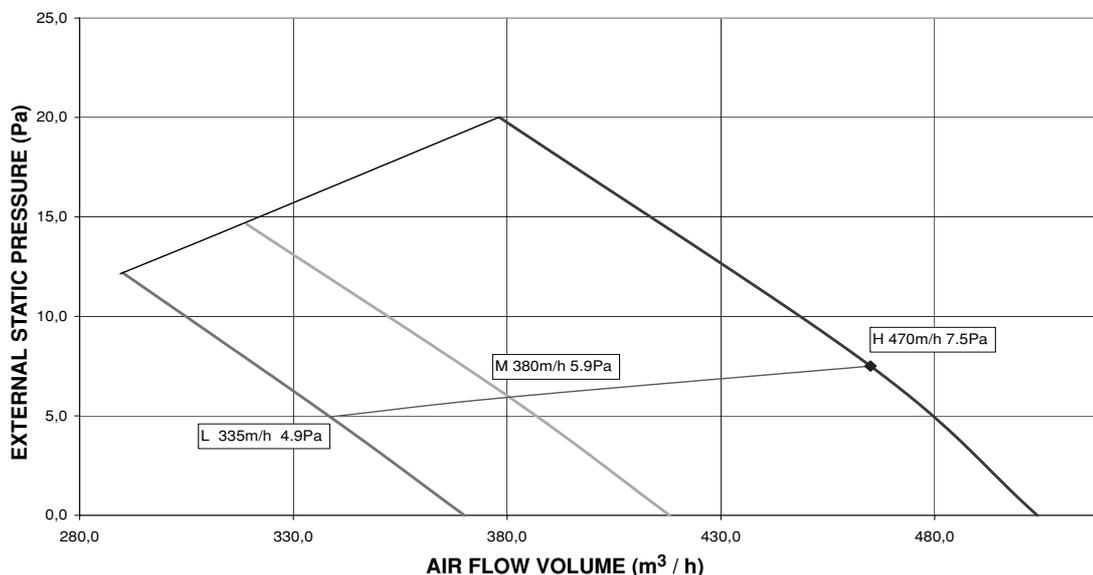


4. CONTROL OF THE AIR VOLUME TO THE OUTLET GRILLES

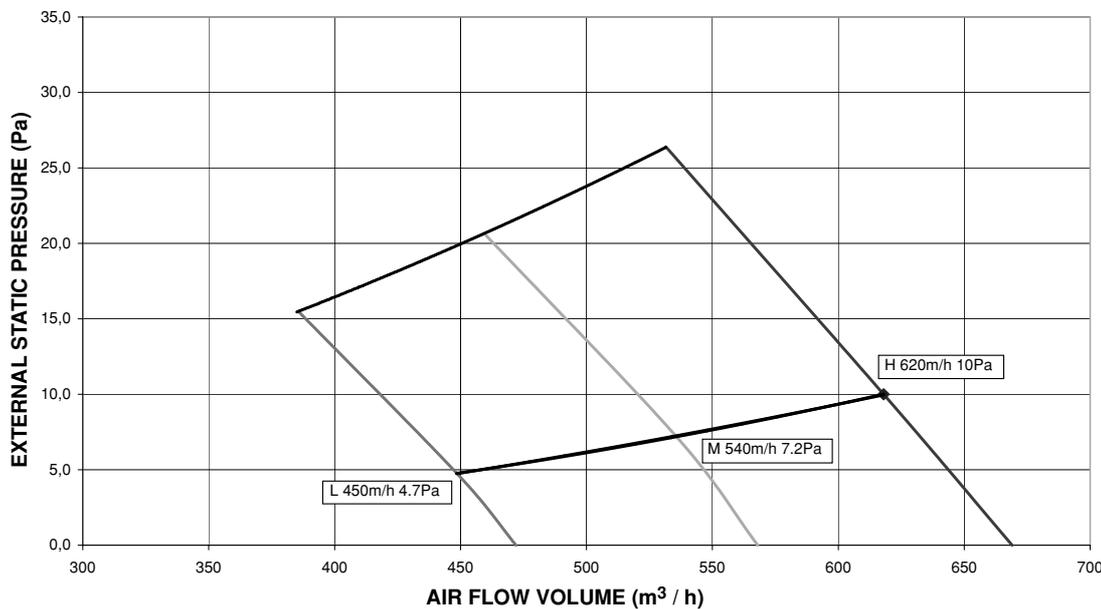
The unit is prearranged to supply an external static pressure of about 7,5 Pa (7/9/12) and 10 Pa (16/18/22). Too high resistances in the air distribution system can cause an exceedingly small air volume to the outlet grilles.

H = High fan speed
L = Low fan speed
M = Middle fan speed

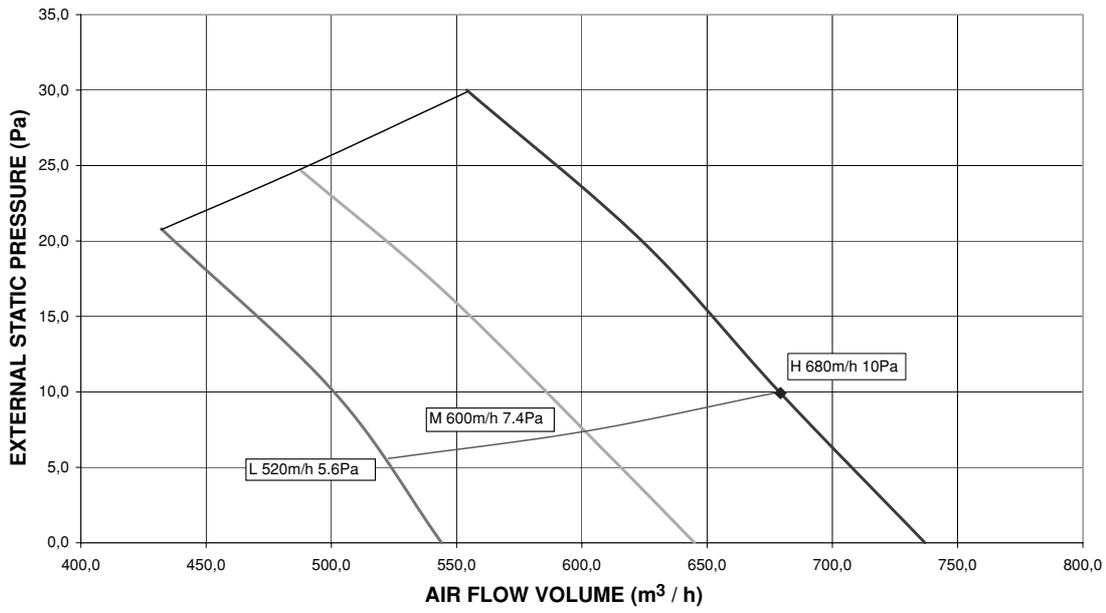
7/9/12



16/18



H = High fan speed
L = Low fan speed
M = Middle fan speed



5. ELECTRICAL WIRING

5-1. General Precautions on Wiring

- (1) Before wiring, confirm the rated voltage of the unit as shown on its nameplate, then carry out the wiring closely following the wiring diagram.
- (2) Provide a power outlet to be used exclusively for each unit, and a power supply disconnect and circuit breaker for overcurrent protection should be provided in the exclusive line.
- (3) To prevent possible hazards from insulation failure, the unit must be grounded.
- (4) Each wiring connection must be done in accordance with the wiring system diagram. Wrong wiring may cause the unit to misoperate or become damaged.
- (5) Do not allow wiring to touch the refrigerant tubing, compressor, or any moving parts of the fan.
- (6) Unauthorized changes in the internal wiring can be very dangerous. The manufacturer will accept no responsibility for any damage or misoperation that occurs as a result of such unauthorized changes.
- (7) Regulations on wire diameters differ from locality to locality. For field wiring rules, please refer to your LOCAL ELECTRICAL CODES before beginning.
You must ensure that installation complies with all relevant rules and regulations.
- (8) To prevent malfunction of the air conditioner caused by electrical noise, care must be taken when wiring as follows:
 - The remote control wiring and the inter-unit control wiring should be wired apart from the inter-unit power wiring.
 - Use shielded wires for inter-unit control wiring between units and ground the shield on both sides.
- (9) If the power supply cord of this appliance is damaged, it must be replaced by a repair shop appointed by the manufacture, because special purpose tools are required.

5-2. Recommended Wire Length and Wire Diameter for Power Supply System

	(A) power supply		time delay fuse or circuit capacity
	wire size	max length	
EFL 80-3R / MFL 80R-3	6mm ²	92m	30-35A
EFL 100-3R / MFL 100R-3	6mm ²	70m	35A
EFL 120-3R / MFL 120R-3	6mm ²	57m	40A
	10mm ²	95m	50A
EFL 140-3R / MFL 140R-3	10mm ²	79m	40-50A
EFL 160-3R / MFL 160R-3	10mm ²	68m	50A
MFL 40 H/HC	4mm ²	16m	25A
MFL 50 H/HC	6mm ²	24m	35A
MFL 60 H/HC	6mm ²	20m	35A

(B) POWER SUPPLY	TIME DELAY FUSE OR CIRCUIT CAPACITY
2,5 mm ²	
Max. 130 m	10-16 A

Control wiring

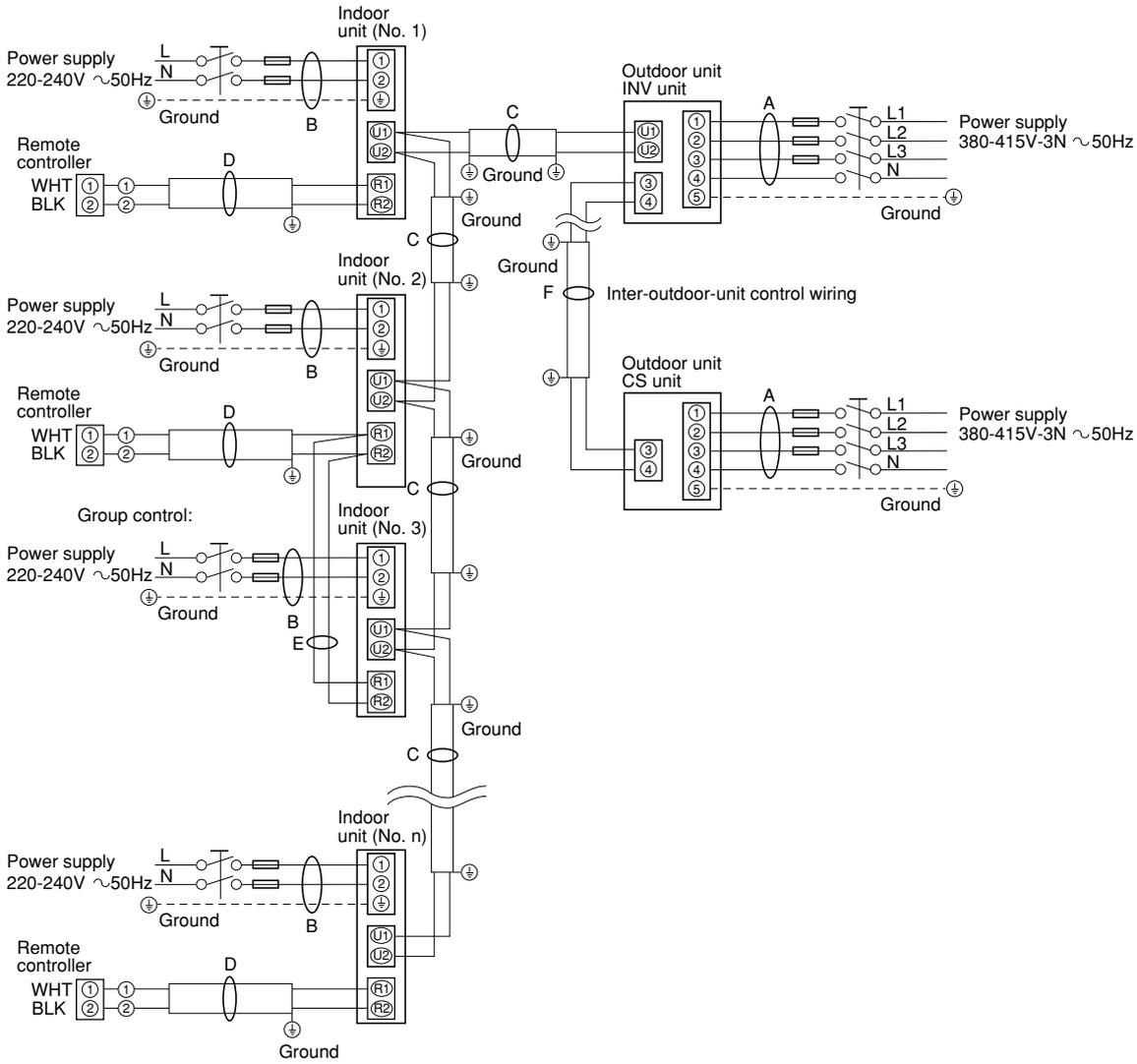
(C) Inter-unit (between outdoor and indoor units) control wiring	(D) Remote control wiring	(E) Control wiring for group control
0.75 mm ² (AWG #18) Use shielded wiring*	0.75 mm ² (AWG #18) Use shielded wiring	0.75 mm ² (AWG #18) Use shielded wiring
Max. 1,000 m	Max. 500 m	Max. 500 m (Total)

NOTE

* With ring-type wire terminal.

(F) Inter-outdoor unit control wiring
0.75 mm ² (AWG #18) Use shielded wiring
Max. 500 m

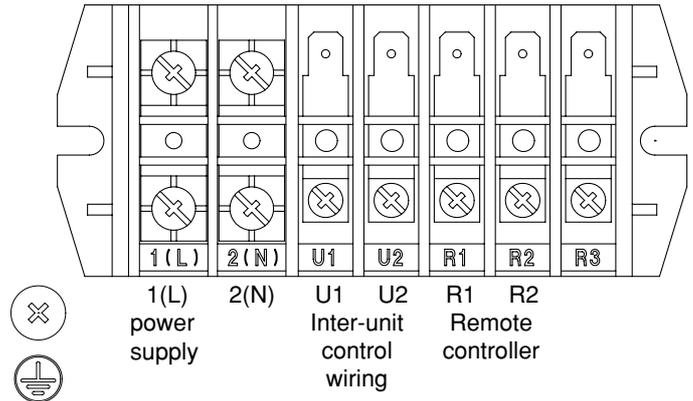
5-3. Wiring System Diagrams



NOTE

- (1) Refer to Section 5-2. "Recommended Wire Length and Wire Diameter for Power Supply System" for the explanation of "A," "B," "C," "D," and "E," in the above diagrams.
- (2) The basic connection diagram of the indoor unit shows the 7P terminal board, so the terminal boards in your equipment may differ from the diagram.
- (3) Refrigerant Circuit (R.C.) address should be set before turning the power on.

7P terminal board





CAUTION

(1) When linking outdoor units in a network (S-net link system), disconnect the terminal extended from the short plug (CN003, 2P Black, location: right bottom on the outdoor main control PCB) from all outdoor units except any one of the outdoor units.

(When shipping: In shorted condition.)

Otherwise the communication of S-net link system is not performed. For a system without link (no connection wiring between outdoor units), do not remove the short plug.

(2) Do not install the inter-unit control wiring in a way that forms a loop. (Fig. 5-1)

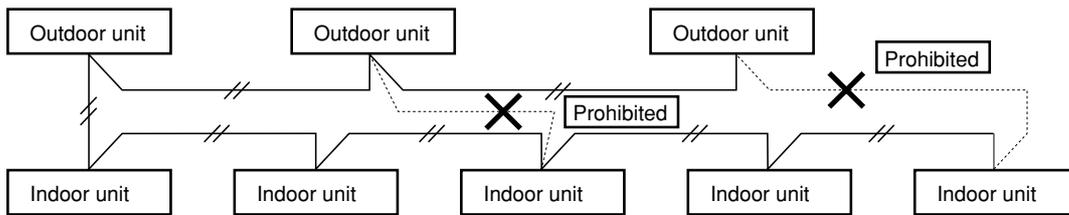


Fig. 5-1

(3) Do not install inter-unit control wiring such as star branch wiring. Star branch wiring causes mis-address setting.

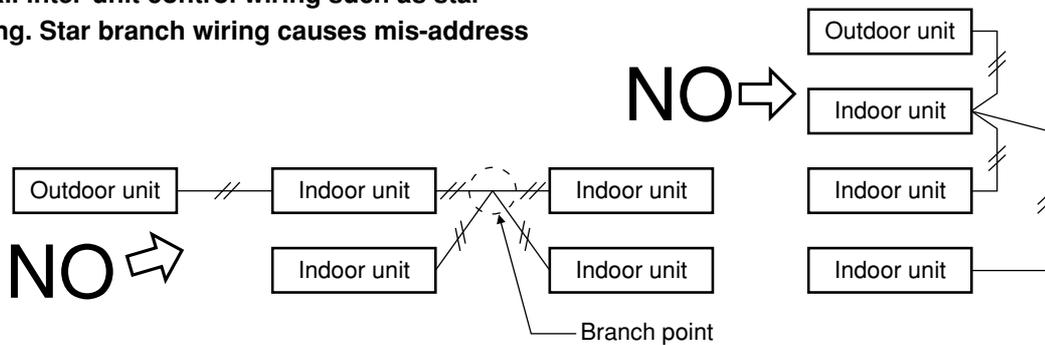


Fig. 5-2

(4) If branching the inter-unit control wiring, the number of branch points should be 16 or fewer. (Branches less than 1 m are not included in the total branch number.) (Fig. 5-3)

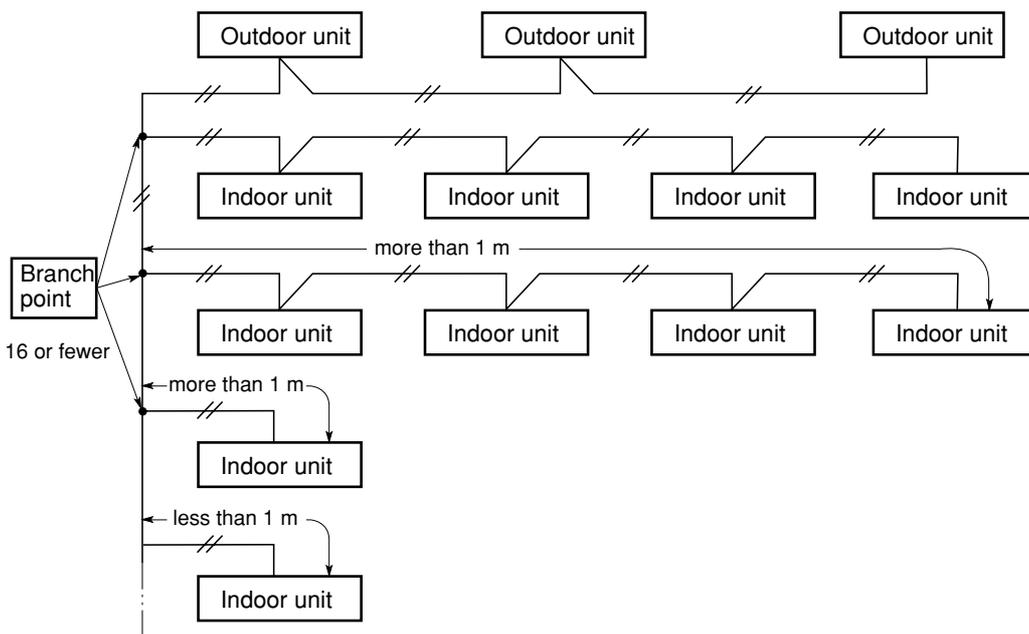


Fig. 5-3

- (5) Use shielded wires for inter-unit control wiring (c) and ground the shield on both sides, otherwise misoperation from noise may occur.

(Fig. 5-4)

Connect wiring as shown in Section “5-3. Wiring System Diagrams.”



WARNING

Loose wiring may cause the terminal to overheat or result in unit malfunction. A fire hazard may also exist. Therefore, ensure that all wiring is tightly connected.

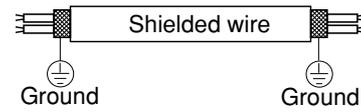


Fig. 5-4

When connecting each power wire to the terminal, follow the instructions on “How to connect wiring to the terminal” and fasten the wire securely with the fixing screw of the terminal plate.

How to connect wiring to the terminal

■ For stranded wiring

- (1) Cut the wire end with cutting pliers, then strip the insulation to expose the stranded wiring about 10 mm and tightly twist the wire ends. (Fig. 5-5)
- (2) Using a Phillips head screwdriver, remove the terminal screw(s) on the terminal plate.
- (3) Using a ring connector fastener or pliers, securely clamp each stripped wire end with a ring pressure terminal.
- (4) Place the ring pressure terminal, and replace and tighten the removed terminal screw using a screwdriver. (Fig. 5-6)

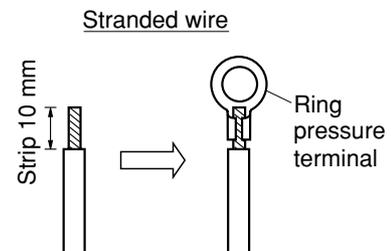


Fig. 5-5

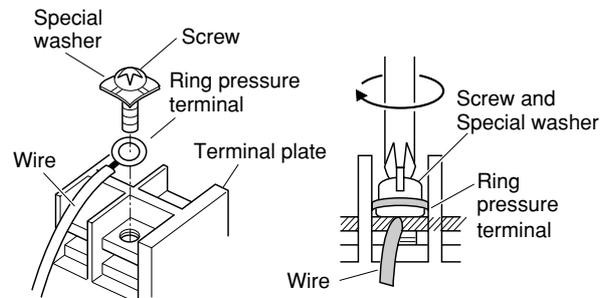


Fig. 5-6

6. HOW TO PROCESS TUBING

The narrow tubing side is connected by a flare nut, and the wide tubing side is connected by brazing.

6-1. Connecting the Refrigerant Tubing

Use of the Flaring Method

Many of conventional split system air conditioners employ the flaring method to connect refrigerant tubes which run between indoor and outdoor units. In this method, the copper tubes are flared at each end and connected with flare nuts.

Flaring Procedure with a Flare Tool

- (1) Cut the copper tube to the required length with a tube cutter. It is recommended to cut approx. 30 – 50 cm longer than the tubing length you estimate.
- (2) Remove burrs at the end of the copper tube with a tube reamer or file. This process is important and should be done carefully to make a good flare. (Fig. 6-1)

NOTE

When reaming, hold the tube end downward and be sure that no copper scraps fall into the tube. (Fig. 6-2)

- (3) Remove the flare nut from the unit and be sure to mount it on the copper tube.
- (4) Make a flare at the end of copper tube with a flare tool.* (Fig. 6-3)
(*Use "RIGID®" or equivalent.)

NOTE

A good flare should have the following characteristics:

- inside surface is glossy and smooth
- edge is smooth
- tapered sides are of uniform length

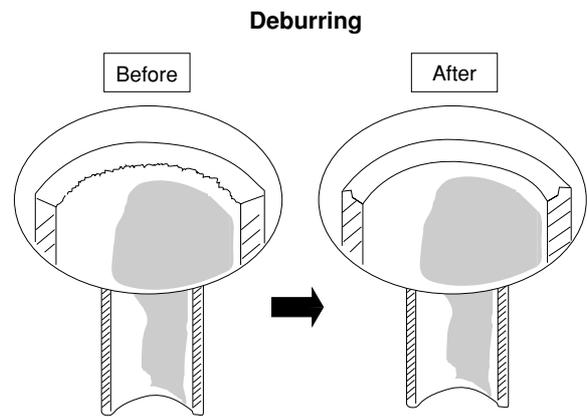


Fig. 6-1

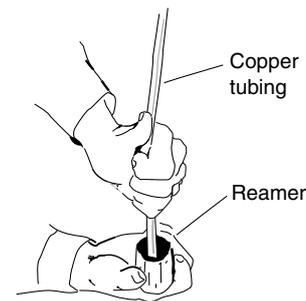


Fig. 6-2

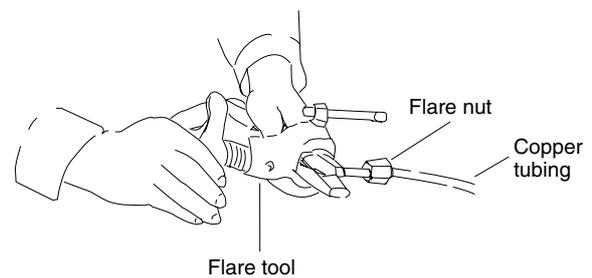


Fig. 6-3

Caution Before Connecting Tubes Tightly

- (1) Apply a sealing cap or water-proof tape to prevent dust or water from entering the tubes before they are used.
 - (2) Be sure to apply refrigerant lubricant to the matching surfaces of the flare and union before connecting them together. This is effective for reducing gas leaks. (Fig. 6-4)
 - (3) For proper connection, align the union tube and flare tube straight with each other, then screw in the flare nut lightly at first to obtain a smooth match. (Fig. 6-5)
- Adjust the shape of the narrow tube (liquid tube) using a tube bender at the installation site and connect it to the narrow tubing side (liquid tubing side) valve using a flare.

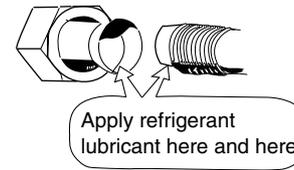


Fig. 6-4

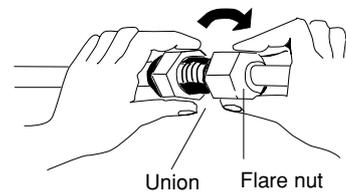


Fig. 6-5

Cautions During Brazing

- Replace air inside the tube with nitrogen gas to prevent copper oxide film from forming during the brazing process. (Oxygen, carbon dioxide and Freon are not acceptable.)
- Do not allow the tubing to get too hot during brazing. The nitrogen gas inside the tubing may overheat, causing refrigerant system valves to become damaged. Therefore allow the tubing to cool when brazing.
- Use a reducing valve for the nitrogen cylinder.
- Do not use agents intended to prevent the formation of oxide film. These agents adversely affect the refrigerant and refrigerant oil, and may cause damage or malfunctions.

6-2. Connecting Tubing Between Indoor and Outdoor Units

- (1) Tightly connect the indoor-side refrigerant tubing extended from the wall with the outdoor-side tubing.
- (2) To fasten the flare nuts, apply specified torque as at right:
 - When removing the flare nuts from the tubing connections, or when tightening them after connecting the tubing, be sure to use 2 monkey wrenches or spanners as shown. (Fig. 6-6)
 - If the flare nuts are over-tightened, the flare may be damaged, which could result refrigerant leakage and cause in injury or asphyxiation to room occupants.
 - For the flare nuts at tubing connections, be sure to use the flare nuts that were supplied with the unit, or else flare nuts for R410A (type 2). The refrigerant tubing that is used must be of the correct wall thickness as shown in the table at right.

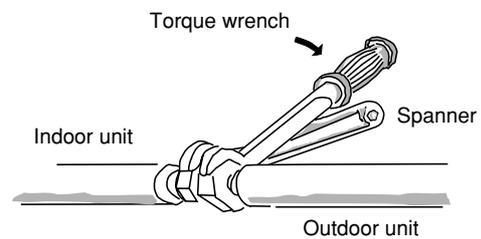


Fig. 6-6

Tube diameter	Tightening torque, approximate	Tube thickness
φ6.35 (1/4")	14 – 18 N · m (140 – 180 kgf · cm)	0.8 mm
φ9.52 (3/8")	34 – 42 N · m (340 – 420 kgf · cm)	0.8 mm
φ12.7 (1/2")	49 – 61 N · m (490 – 610 kgf · cm)	0.8 mm
φ15.88 (5/8")	68 – 82 N · m (680 – 820 kgf · cm)	1.0 mm

Because the pressure is approximately 1.6 times higher than conventional refrigerant pressure, the use of ordinary flare nuts (type 1) or thin-walled tubes may result in tube rupture, injury, or asphyxiation caused by refrigerant leakage.

- In order to prevent damage to the flare caused by over-tightening of the flare nuts, use the table above as a guide when tightening.
- When tightening the flare nut on the narrow tube, use a monkey wrench with a nominal handle length of 200 mm.

6-3. Insulating the Refrigerant Tubing

Tubing Insulation

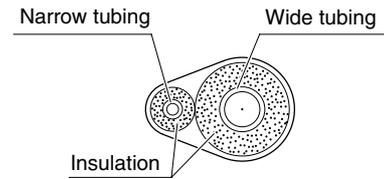
- Thermal insulation must be applied to all unit tubing, including distribution joint (purchased separately).
 - * For gas tubing, the insulation material must be heat resistant to 120°C or above. For other tubing, it must be heat resistant to 80°C or above.
- Insulation material thickness must be 10 mm or greater.
- If the conditions inside the ceiling exceed DB 30°C and RH 70%, increase the thickness of the gas tubing insulation material by 1 step.



CAUTION

If the exterior of the outdoor unit valves has been finished with a square duct covering, make sure you allow sufficient space to use the valves and to allow the panels to be attached and removed.

Two tubes arranged together



Three tubes arranged together

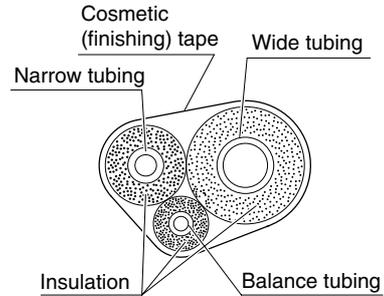


Fig. 6-7

Taping the flare nuts

Wind the insulation tape around the flare nuts at the wide tube connections. Then cover up the tubing connections with the flare insulator, and fill the gap at the union with the insulation tape. Finally, fasten the insulator at both ends with the vinyl clamps. (Fig. 6-8)

Insulation material

The material used for insulation must have good insulation characteristics, be easy to use, be age resistant, and must not easily absorb moisture.

After a tube has been insulated, never try to bend it into a narrow curve



CAUTION

because it can cause the tube to break or crack.

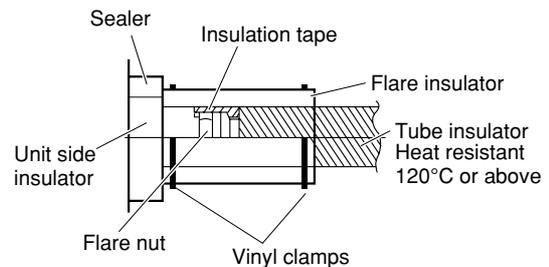


Fig. 6-8

Never grasp the drain or refrigerant connecting outlets when moving the unit.

6-4. Taping the Tubes

- (1) At this time, the refrigerant tubes (and electrical wiring if local codes permit) should be taped together with armoring tape in 1 bundle. To prevent the condensation from overflowing the drain pan, keep the drain hose separate from the refrigerant tubing.
- (2) Wrap the armoring tape from the bottom of the outdoor unit to the top of the tubing where it enters the wall. As you wrap the tubing, overlap half of each previous tape turn.
- (3) Clamp the tubing bundle to the wall, using 1 clamp approx. each meter. (Fig. 6-10)

NOTE

Do not wind the armoring tape too tightly since this will decrease the heat insulation effect. Also ensure that the condensation drain hose splits away from the bundle and drips clear of the unit and the tubing.

5-5. Finishing the Installation

After finishing insulating and taping over the tubing, use sealing putty to seal off the hole in the wall to prevent rain and draft from entering. (Fig. 6-11)

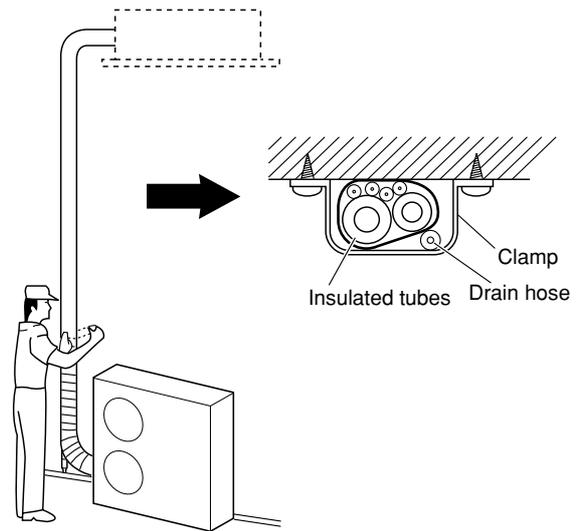


Fig. 6-10

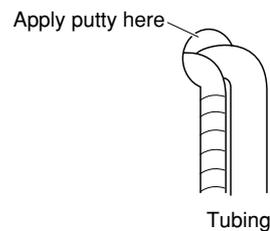


Fig. 6-11

Care and Cleaning



WARNING

1. For safety, be sure to turn the air conditioner off and also to disconnect the power before cleaning.
2. Do not pour water on the indoor unit to clean it. This will damage the internal components and cause an electric shock hazard.

Air intake and outlet side (Indoor unit)

Clean the air intake and outlet side of the indoor unit with a vacuum cleaner brush, or wipe them with a clean, soft cloth.

If these parts are stained, use a clean cloth moistened with a mild liquid detergent. When cleaning the air outlet side, be careful not to force the vanes out of place.



CAUTION

1. Never use solvents or harsh chemicals when cleaning the indoor unit. Do not wipe plastic parts using very hot water.
2. Some metal edges and the fins are sharp and may cause injury if handled improperly; be especially careful when you clean these parts.
3. The internal coil and other components of the outdoor unit must be cleaned every year. Consult your dealer or service center.

Air filter

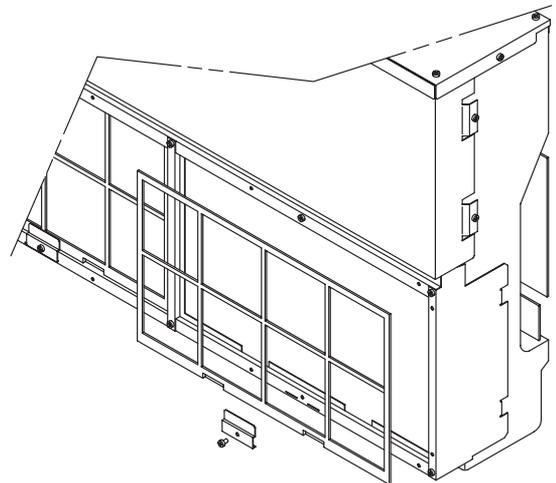
The air filter collects dust and other particles from the air and should be cleaned once every six months or when the filter indication (■) on the display of the remote control unit (wired type) shows that the filter needs cleaning. If the filter gets blocked, the efficiency of the air conditioner drops greatly.

How to remove the filter

1. Remove the air filter from the air intake grille.
2. Clean the air filter.
3. When replacing the filter, make sure that the FRONT mark is facing you. Reinsert the filter into the air intake grille.

FILTER CLEANING

Use a vacuum cleaner to remove light dust. If there is sticky dust on the filter, wash the filter in lukewarm, soapy water, rinse it in clean water, and dry it.

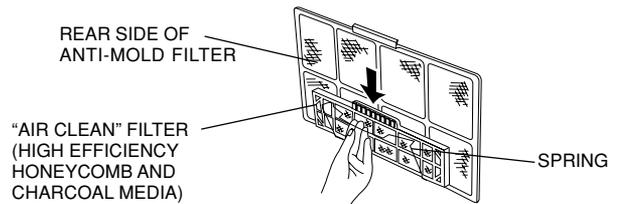


"AIR CLEAN" FILTER (ACCESSORY SUPPLIED ON REQUEST)

- The air filter is to be added by springs to the standard filter.
- It is made of two layers:
 - the first layer consists in a synthetic honey comb high efficiency media to remove the dust and purifying the air.
 - the second layer in charcoal media deodorizing the ambient air.

How to install the "Air clean" filter.

1. Open the unit intake air grille and pull out the standard air filter.
2. Apply on the rear side of the filter the two springs supplied with the accessory.
3. Fix the "air clean" filter by the springs.
4. Insert the two air filters one over the other and close the intake grille.



Troubleshooting

If your air conditioner does not work properly, first check the following points before requesting service. If it still does not work properly, contact your dealer or a service center.

Trouble	Possible Cause	Remedy
Air conditioner does not run at all.	<ol style="list-style-type: none"> 1. Power failure. 2. Leakage circuit breaker has tripped. 3. Line voltage is too low. 4. Operation button is turned off. 5. The wired remote control unit or heat pump is malfunctioning. (The inspection mark  and the letters E, F, H, L, P in combination with numbers appear on the LCD of the wired remote control unit.) 	<ol style="list-style-type: none"> 1. After a power outage, press ON/OFF operation button on the wired remote control unit. 2. Contact service center. 3. Consult your electrician or dealer. 4. Press the button again. 5. Consult your dealer.
Compressor runs but soon stops.	<ol style="list-style-type: none"> 1. Obstruction in front of condenser coil. 	<ol style="list-style-type: none"> 1. Remove obstruction.
Poor cooling (or heating) performance.	<ol style="list-style-type: none"> 1. Dirty or clogged air filter. 2. Heat source or many people in room. 3. Doors and/or windows are open. 4. Obstacle near air intake or air discharge port. 5. Thermostat is set too high for cooling (or too low for heating). 6. (Defrosting system does not work.) 	<ol style="list-style-type: none"> 1. Clean air filter to improve the airflow. 2. Eliminate heat source if possible. 3. Shut them to keep the heat (or cold) out. 4. Remove it to ensure good airflow. 5. Set the temperature lower (or higher). 6. (Consult your dealer.)

Tips for Energy Saving

- Avoid**
- **Do not block the air intake and outlet of the unit. If either is obstructed, the unit will not work well, and may be damaged.**
 - Do not let direct sunlight into the room. Use sunshades, blinds or curtains. If the walls and ceiling of the room are warmed by the sun, it will take longer to cool the room.
- Do**
- Always try to keep the air filter clean. (Refer to “Care and Cleaning”.) A clogged filter will impair the performance of the unit.
 - To prevent conditioned air from escaping, keep windows, doors and any other openings closed.

NOTE

Should the power fail while the unit is running

If the power supply for this unit is temporarily cut off, the unit will automatically resume operation once power is restored using the same settings before the power was cut off.

EG



NOTE: This symbol mark and recycle system are applied only to EU countries and not applied to the countries in the other area of the world.

Your product is designed and manufactured with high quality materials and components which can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed separately from your household waste.

Please dispose of this equipment at your local community waste collection/recycling centre.

In the European Union there are separate collection systems for used electrical and electronic products.

Please help us to conserve the environment we live in!

F



REMARQUE : Ce symbole de recyclage s'applique uniquement aux pays UE et ne concerne pas les pays du reste du monde.

Votre appareil est conçu et fabriqué à partir de matériaux et de composants de première qualité, qui peuvent être recyclés et réutilisés.

Ce symbole indique que les équipements électriques et électroniques, une fois leur vie terminée, doivent être mis au rebut séparément de vos ordures ménagères.

Veuillez, par conséquent, vous adresser à votre société locale de collecte des déchets et de recyclage.

Il existe au sein de l'Union Européenne différents systèmes de collecte des appareils électriques et électroniques usagers.

Aidez-nous à préserver l'environnement !

ES



NOTA: Este símbolo y sistema de reciclaje se aplican sólo a los países de la UE y no a los países de otras zonas del mundo.

Este producto ha sido diseñado y fabricado con materiales y componentes de gran calidad que pueden ser reciclados y reutilizados.

Este símbolo significa que, al final de su vida útil, el equipo eléctrico y electrónico, deberían ser desechados separándolos de los residuos del hogar.

Rogamos depositen este equipo en el centro de recolección/reciclaje de su comunidad.

En la Unión Europea existen sistemas de recolección independientes para los productos eléctricos y electrónicos usados.

¡Ayúdenos a conservar el entorno en que vivimos!

I



NOTA: Questo simbolo e il sistema di riciclaggio che sottende si applicano solo ai paesi UE. Non si applicano alle altre aree del mondo.

Il prodotto è progettato e fabbricato con materiali e componenti di alta qualità che possono essere riciclati e riutilizzati.

Questo simbolo significa le apparecchiature elettriche ed elettroniche, al termine del loro ciclo operativo, vanno smaltite separatamente dai rifiuti domestici.

Si prega di smaltire questa apparecchiatura portandola al proprio centro di raccolta/riciclaggio dei rifiuti locale.

Nell'Unione Europea esistono sistemi di raccolta separati per i prodotti elettronici ed elettrici usati.

Aiutateci a preservare l'ambiente in cui viviamo!



ACE

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