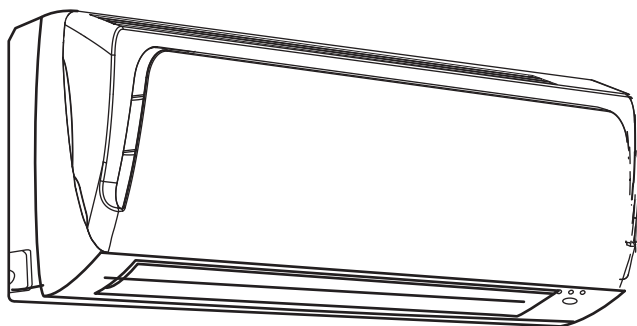
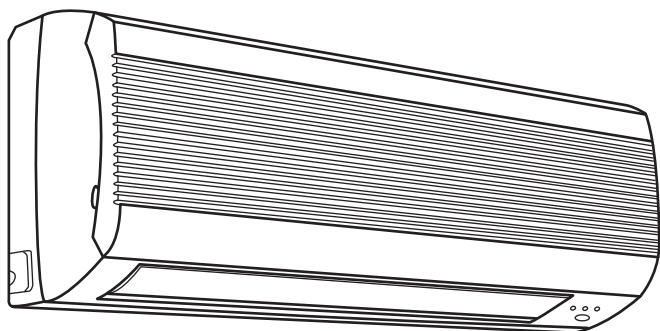
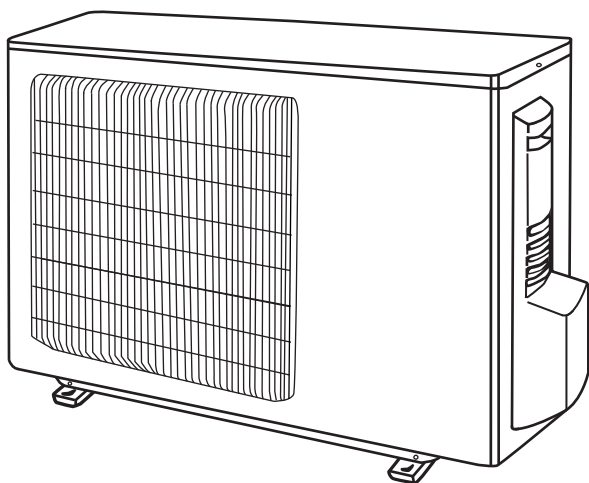


OPERATING AND INSTALLATION MANUAL



**SINGLE SPLIT AIR-CONDITIONER
AND HEAT PUMP**



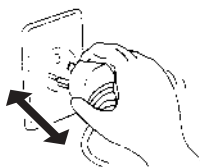
**Please carefully read this
manual before operating the
appliance.**

U	I	A	Safety standards	2
U	I	A	Identification of the parts	4
U	I	A	Remote control	6
U	I	A	Maintenance	9
U	I	A	Troubleshooting	10
	I	A	Installation instructions	11
	I	A	Installation of the indoor unit	13
	I	A	Installation of the outdoor unit	17
	I	A	Venting the air	17
U	I	A	Note	18
U	I	A	Useful information	18

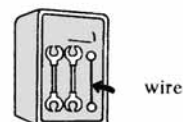
U User **I** Installer **A** Service



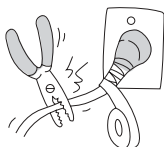
Use the power supply voltage shown on the rating plate. Keep the power switch or plug clean. Connect the power cable correctly and securely to the outlet, avoiding the risk of electric shock or fire due to insufficient contact.



Check that the outlet is suitable for the plug, otherwise have the outlet replaced. Do not use the power switch or pull out the plug to switch the appliance off when operating. This may cause fires due to sparks, etc.

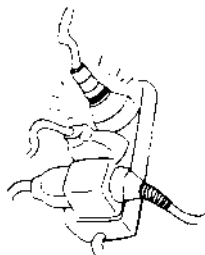


The user must contact qualified personnel to earth the appliance, in compliance with the legislation in force, and to install a thermal-magnetic circuit breaker.

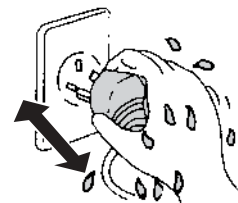


Do not bend, pull or press the power cable, as it may break. Electric shock or fire are usually caused by damaged power cables.

The power cable must only be replaced by specialist technicians.



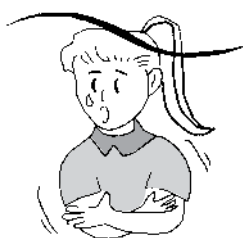
Do not use power supply cables that are too long, or multiple adapters.



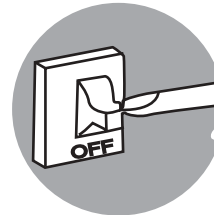
Do not operate the air-conditioner with wet hands; this may cause electric shock.



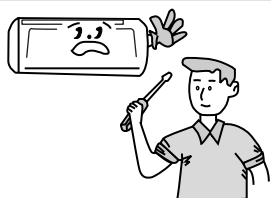
Do not block the air inlet or outlet of either the indoor or outdoor unit.



Extended exposure to cold air is a health risk.



If smoke or a smell of burning is detected, immediately disconnect power and contact the Service Centre.



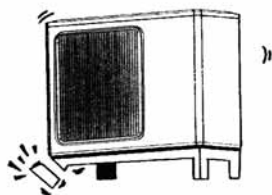
Do not modify or alter the characteristics of the appliance in any way. Contact the Service Centres authorised by the Manufacturer for all repairs. Incorrect repair may cause electric shock, etc.



Make sure the appliance is disconnected from the power supply when not used for extended periods, and before performing any cleaning or maintenance operations.



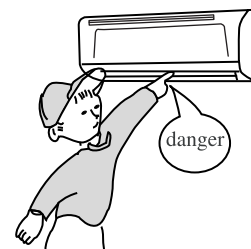
Do not install the appliance in environments where the air may contain gases, oil or sulphur, or near sources of heat.



Check that the base of the outdoor unit is installed securely.



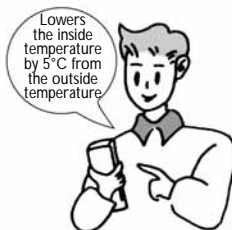
This appliance must only be used by adults; do not allow children to play with the appliance. Do not climb onto or rest objects on the outdoor unit.



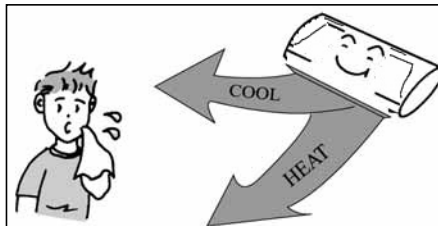
Never insert sticks or tools into the appliance. This may cause injuries.



Keep the appliance at least 50cm from flammable substances (alcohol, etc.) or from pressurised containers (e.g. spray cans).



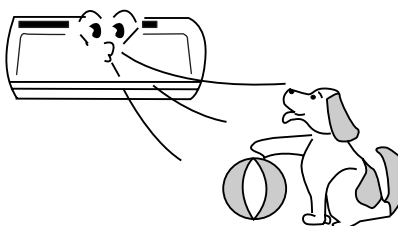
Selecting the most suitable temperature will avoid damaging the appliance.



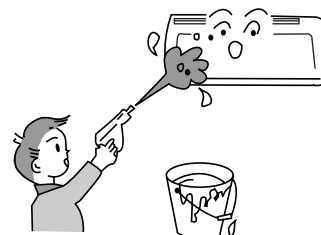
The direction of air flow must be adjusted correctly. The louvers must be adjusted downwards in heating mode, and upwards in cooling mode.



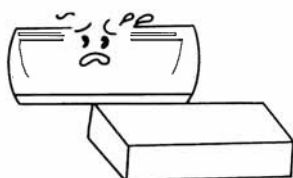
Do not leave doors and windows open when the air-conditioner is operating for long periods.



Do not aim the air stream directly at plants or animals.



Do not spray water onto the air-conditioner.



This appliance has been designed to air-condition the home and must not be used for other purposes, such as drying clothes, cooling food, etc.



If the appliance is used in areas without the renewal of fresh air, precautions must be taken to prevent any leaks of refrigerant gas from stagnating in the environment and creating the risk of fire.



Do not rest heavy or hot objects on the appliance.



The packing materials are recyclable. It is therefore recommended to place them in suitable containers for separate waste disposal. At the end of its working life, take the air-conditioner to a special waste disposal centre.

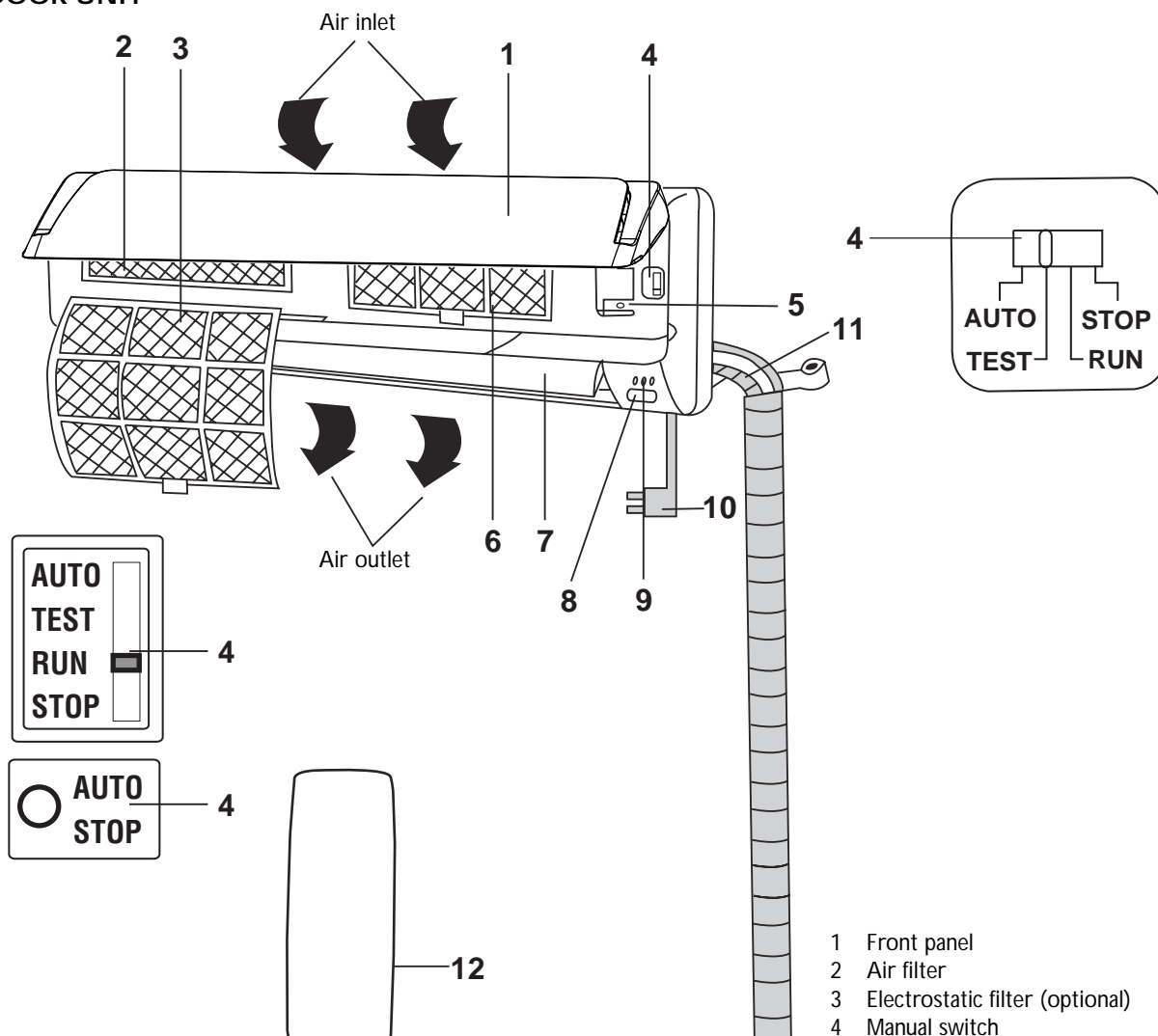


Only use the air-conditioner as shown in this booklet. These instructions are not intended to cover every possible situation that may arise. Common sense and prudence must be applied in the installation, operation and conservation of all household appliances.

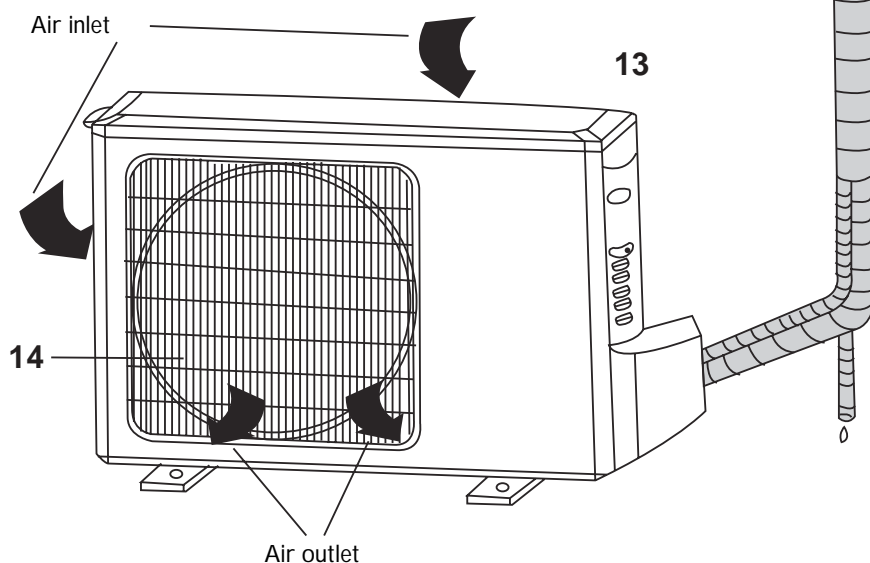
※ Working temperature range

	Indoor side DB(℃)	Outdoor side DB(℃)
Maximum cooling	36	45
Minimum cooling	16	18
Maximum heating	30	27
Minimum heating	16	-7


INDOOR UNIT



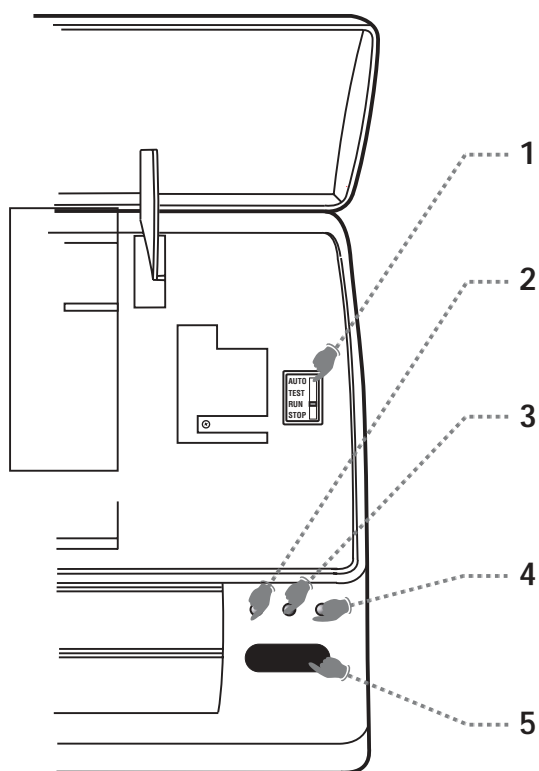
OUTDOOR UNIT



- 1 Front panel
- 2 Air filter
- 3 Electrostatic filter (optional)
- 4 Manual switch
- 5 Cable panel
- 6 Activated carbon filter
- 7 Louvers
- 8 Signal receiver
- 9 LED display
- 10 Power plug
- 11 Drain hose
- 12 Remote control
- 13 Handle
- 14 Air outlet grill

 The above figure represents a simplified layout of the appliance and may not correspond to the appearance of the unit actually purchased.

OPERATION AND DISPLAY



1. Manual switch

This is used to start the appliance if the remote control is not working.*

2. Heating indicator

This comes on when the appliance is in heating mode.

3. Cooling indicator


This comes on when the appliance is in cooling mode.


4. Operation indicator


This comes on when the appliance is operating.

5. Signal receiver

Receives the signals from the remote control.

 The shape and the position of the switches and indicators may change according to the model, however their functions remain the same.

 Power on when grill open.

 *This operation must be carried out by specialist technicians.

Description and Function of Remote Controller Keys

Notes:

- Make sure that there is no obstruction between remote controller and signal receiving window.
- Do not fall off or throw the remote controller.
- Do not let any liquid flow into remote controller, or expose the remote controller under direct sunshine or extreme hot temperature.

SWING key

One press of this key will enable the guide louver to swing at a specific angle. Another press will stop the guide louver.

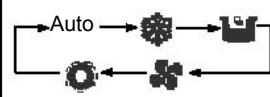
TEMP. key

Each press of (+) key will increase the preset temperature by 1°C. Each press of (-) key will decrease the preset temperature by 1°C.

Under "Cooling mode", "Dehumidifying mode", "Fan mode", "Heating Mode", the indoor temperature can be adjusted to any value between 16~30°C.

MODE key

The run mode will change sequentially as below with each press of MODE key.



SWING

FAN

AUTO FAN OPER

AUTO

88°C AIR

SWING HUMID LIGHT SAVE

88.8 HR.

+

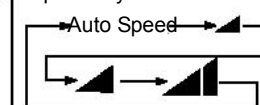
-

MODE

ON/OFF

FAN key

Each press of this key will change the fan speed sequentially as below:



Note: The fan speed is not adjustable under "Auto" mode.

"Cooling mode

"Dehumidifying mode

"Fan mode

"Heating Mode

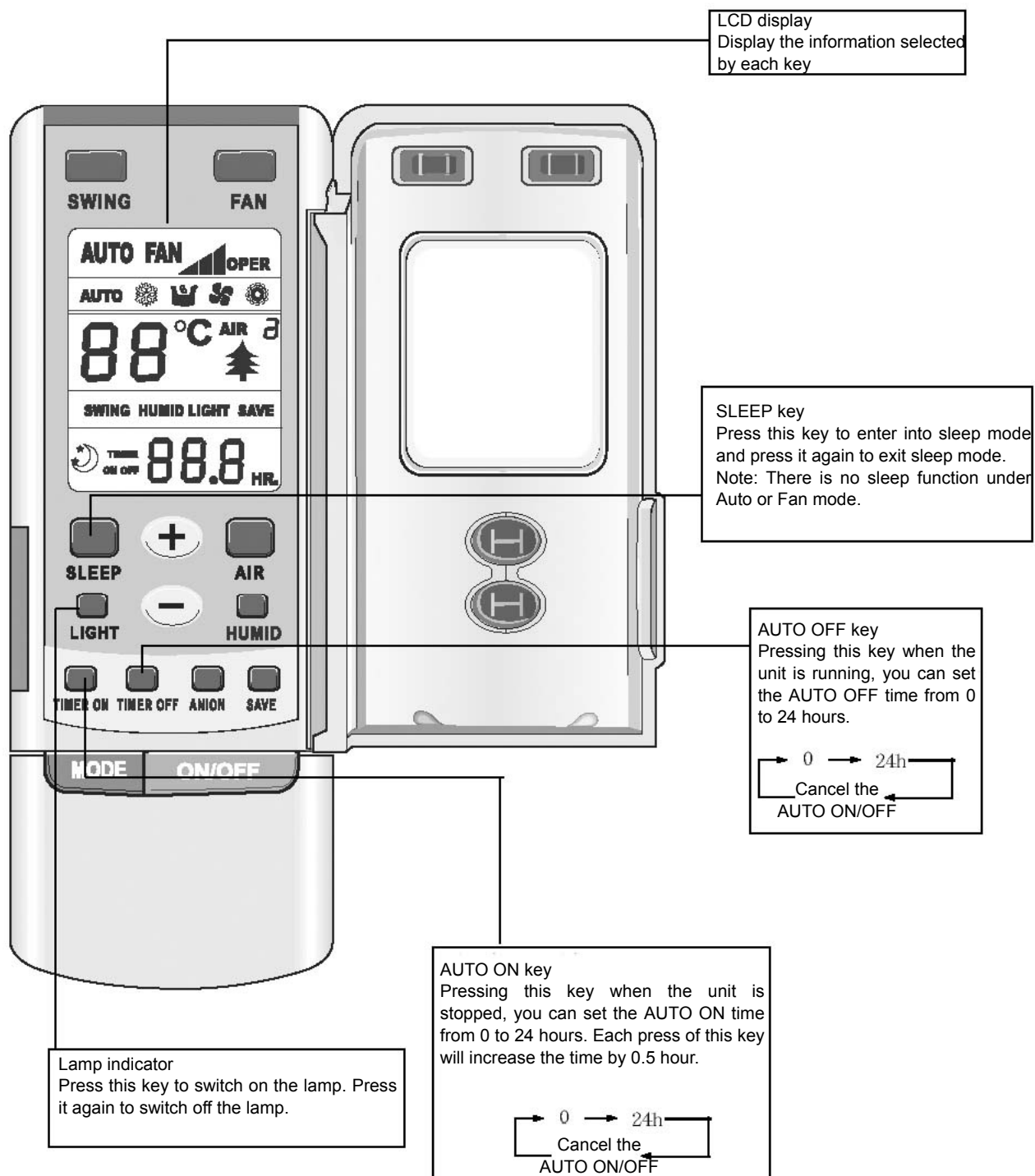
ON/OFF key

Press this key to start the air conditioner. Press it again to stop the air conditioner.

Description and Function of Remote Controller Keys (After opening the rear cover)

Note: This remote controller is for general use and applicable to multiple types (functions) of air conditioner.

Please understand that the keys not applicable to this air conditioner will not be described herein.



Installation of Remote Controller Battery

● Operating Guideline

General Procedures:

1. Switch on the power and press ON/OFF key to start the air conditioner.
2. Press MODE key to select your desired run mode.
3. Press SWING key to enable the guide louver to swing at a specific angle. Press it again to stop the swing.
4. Press FAN key to set the fan speed.
5. Press +/- key to set your desired temperature.

Optional Procedures:

6. Press SLEEP key from remote controller to set the sleep mode.
7. Press AUTO ON/OFF key and then press +/- key to set the timer.

Note: When auto mode is selected, the air conditioner will automatically select an appropriate run mode according to the indoor temperature, making the environment comfortable.

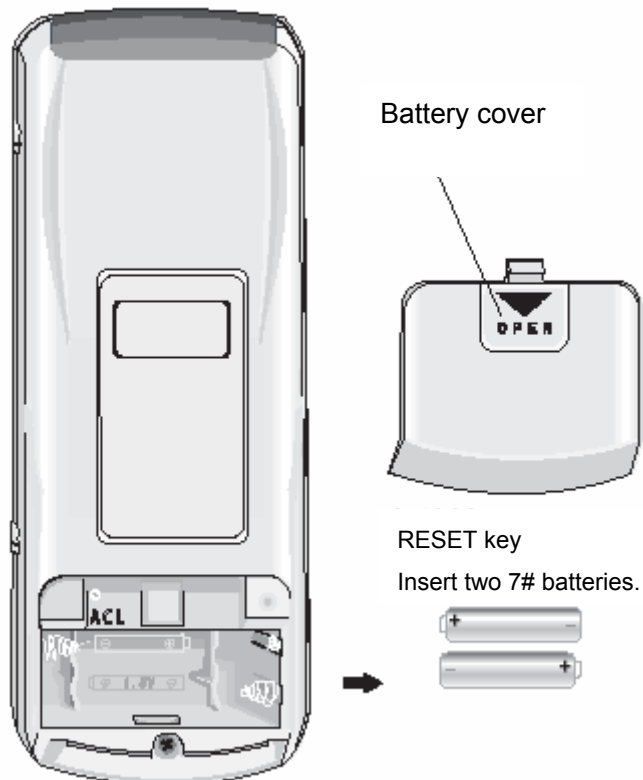
● Replacement of Remote Controller Battery

Two pieces of 7# alkali dry batteries are used in the remote controller.

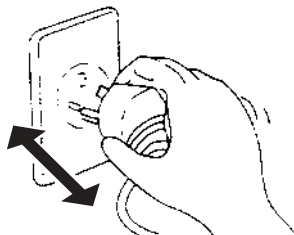
1. Slide the battery cover of remote controller downward. Remove the old batteries and replace with two pieces of new batteries (Take care that the polarity shall be correct)
2. Close the battery cover of remote controller.

Note:

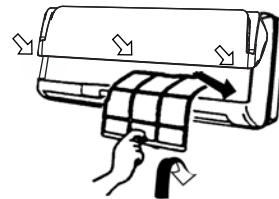
- Do not use new batteries together with old batteries, or use different types of batteries together.
- To avoid leakage of liquid and damage to the remote controller, please take out the batteries if you will not use the remote controller in several weeks.
- Operate the remote controller within effective range.
- Keep the remote controller at least 1 meter away from television set or sound equipment.



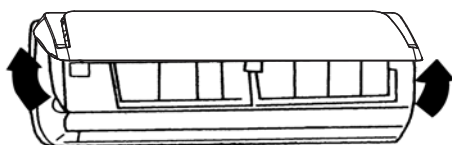
Unplug the appliance from the power outlet



Replace the filters with the side marked as "FRONT" facing the outside



To remove the front panel, pull it outwards, as shown by the arrows in the figure



Installation of the activated carbon filters*

- Remove the air filters
- Remove the new filters from the packaging
- Insert them in the special slots
- Reposition the air filters



Clean with a soft damp cloth, using water or detergent, then dry in the shade.

Never use water at temperatures above 45°C, as the panel may be deformed or fade in colour.

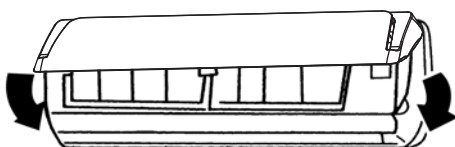


The air filters should be cleaned every 3 weeks

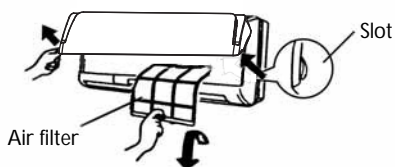
⚠ These operations must be performed by specialist technicians.

***The carbon filters can't be washed.**

Insert the front panel as shown by the arrows in the figure

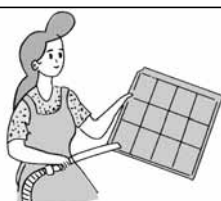


Cleaning the air filters



Open the front panel, grip the filter and lift it slightly, then remove it.

Never use water at temperatures above 45°C, as the panel may be deformed or fade in colour.

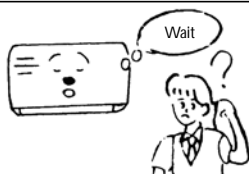


To remove dust from the filter, use a vacuum cleaner or wash the filter in water and then leave it to dry in the shade.

FAULT

POSSIBLE CAUSE

The appliance doesn't work



- Once switched off the air-conditioner cannot be started for around 3 minutes

Strange smell



- This smell may come from other sources, such as furniture or the like.

Sound of running water



- This derives from the flow of refrigerant in the air-conditioner, and is not a fault.

Sprays of atomised water from the air outlet



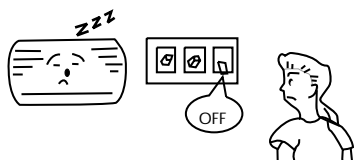
- This occurs when the air in the room cools down very quickly, for example in "COOLING" or "DEHUMIDIFICATION" mode.

Strange noises can be heard



- This noise is produced by the expansion or contraction of the front panel due to the thermal variations, and does not indicate a problem.

The appliance doesn't work



- Are the protection devices or fuses faulty?
- Have the connections come loose or the cable unplugged?
- At times operation is stopped to protect the appliance.
- Is the voltage above 244V or below 206V?
- Is the TIMER-ON functions active?

Insufficient cold or hot air produced



- Is the temperature suitably set?
- Are the outlets and inlets of the air-conditioner blocked?
- Is the air filter dirty?
- Is the fan speed set to the minimum?
- Are there other sources of heat in the room?

The appliance does not respond to the remote control



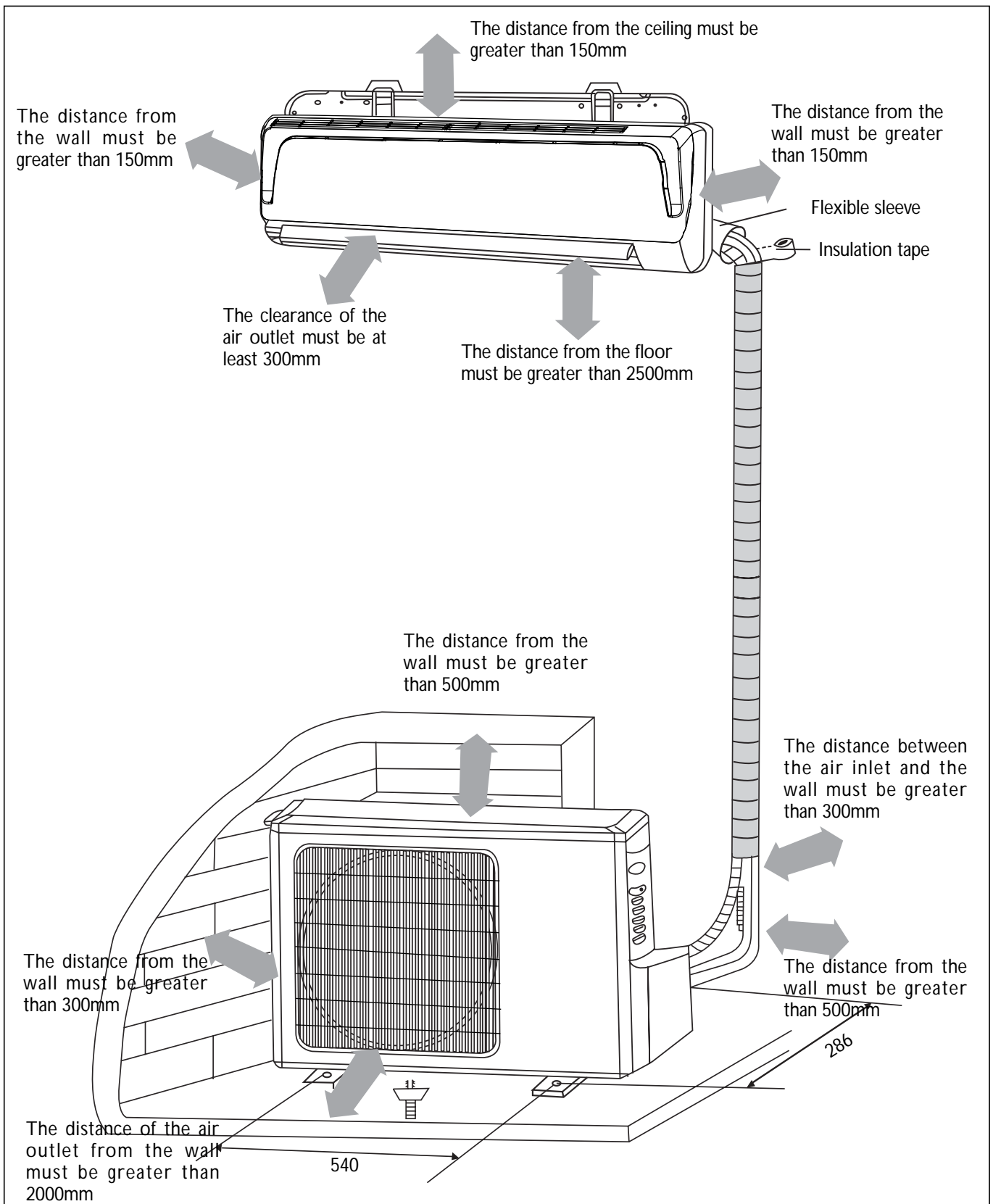
- Is the remote control near the indoor unit?
- Are the batteries in the remote control flat?
- Are there obstacles between the remote control and the signal receiver on the indoor unit?


Immediately switch off the air-conditioner and disconnect the power supply in the event of:



- Strange noises during operation.
- Faulty fuses or switches.
- Sprays of water or objects inside the appliance.
- Hot cables or plugs.
- Very strong smell coming from the appliance.

INSTALLATION DIAGRAM



 The above figure represents a simplified layout of the appliance and may not correspond to the appearance of the unit actually purchased.

SELECTING THE BEST SITE


Suitable places for installation of the indoor unit

- Absence of obstacles near the air outlet so that the air can flow freely around the room.
- Places where it is easy to make holes in the wall and lay the pipes.
- Observe the distances from the ceiling and from the wall indicated in the wiring diagram.
- Places where the air filter can be removed easily.
- Place the unit and the remote control 1 metre or more from television sets, radios, etc.
- Keep the appliance as far away as possible from fluorescent lamps, to prevent harmful effects.
- Do not place objects near the air inlet, so as not to block it.
- In a site that can support the weight and not increase the operating noise and vibrations.
- The appliance shall not be installed in the laundry.

 **Minimum installation height of the indoor unit (Min. 2.5m).**

Places suitable for the installation of the outdoor unit

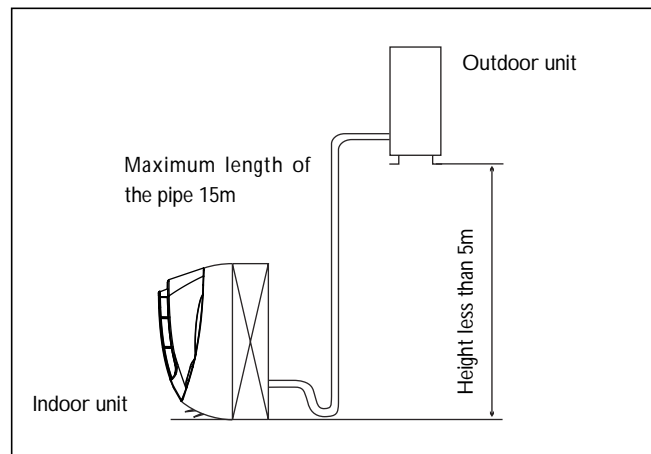
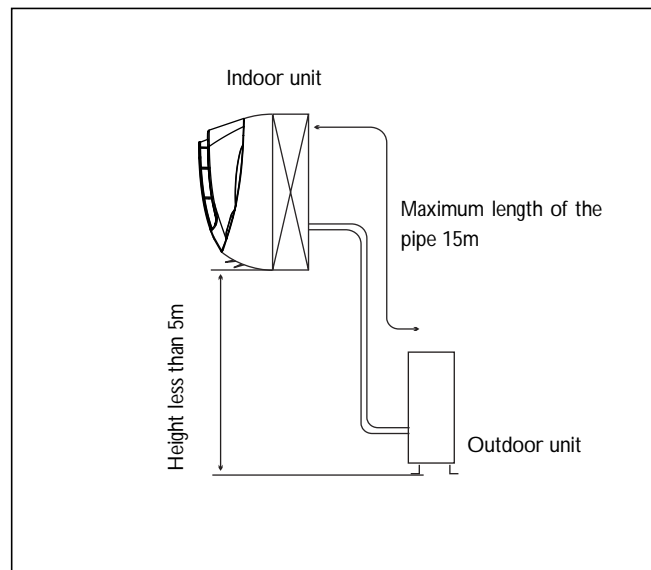
- Install the unit in a suitable and well-ventilated site; avoid installing it in places where there are possible leaks of combustible gases.
- Observe the distance indicated from the wall.
- Do not install the outdoor unit in areas that are dirty or greasy, near gas emissions from vulcanisation or very salty sea areas.
- Avoid installing the unit on the side of a road where it may come into contact with muddy water.
- On a fixed base that does not increase the operating noise.
- In a place where the air outlet is not blocked.

 **The unit must not be started before having been completely assembled in its place of operation.**

The installation and maintenance of the equipment must be carried out exclusively by qualified technicians.

The appliance must be installed according to the legislation in force in the country concerned.

Before starting the appliance, check that it is correctly earthed, according to the legislation in force in the country concerned.



1. INSTALLATION OF THE FASTENING PLATE

Select the position for installing the fastening plate, according to the location of the indoor unit and the layout of the pipes.

Adjust the level of the fastening plate, using a straight-edge or a plumb line.

Make 32mm deep holes in the wall to mount the plate. Insert the plastic plugs in the holes, then secure the fastening plate using the self-threading screws supplied with the unit.

Check that the fastening plate is securely fitted so as to support a 60kg adult.

✎ Your fastening plate may differ from the one described above, yet the installation procedure is the same.

2. MAKE A HOLE FOR THE PIPES

Choose the location of the hole for the pipes, according to the position of the fastening plate.

Make a hole in the wall. The hole must slope downwards towards the outside.

Place a sleeve through the hole in the wall to protect the wall and keep it clean.

3. INSTALLATION OF THE PIPES ON THE INDOOR UNIT

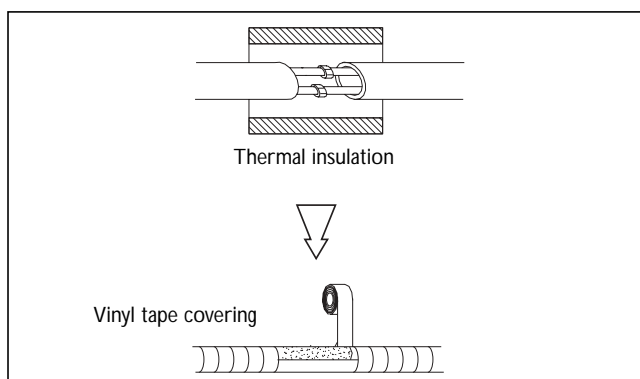
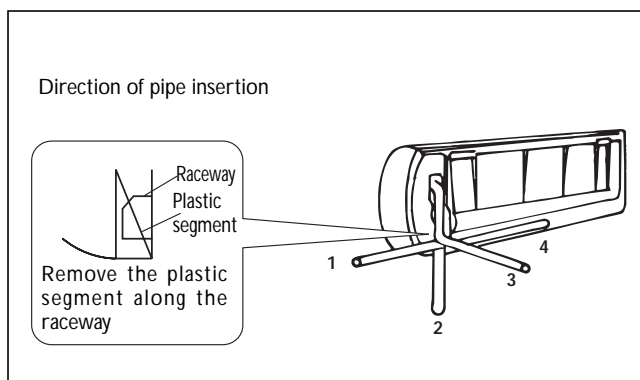
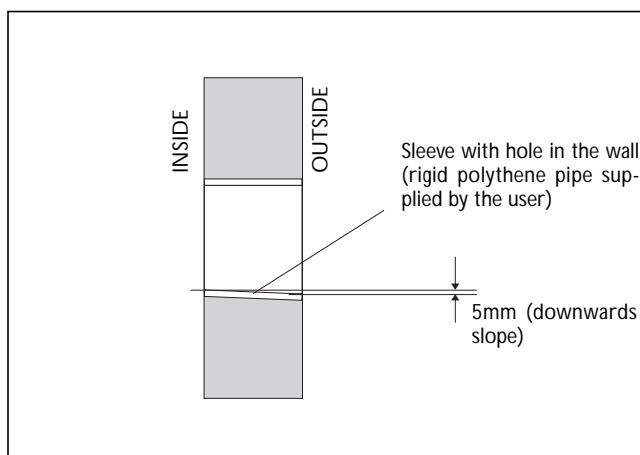
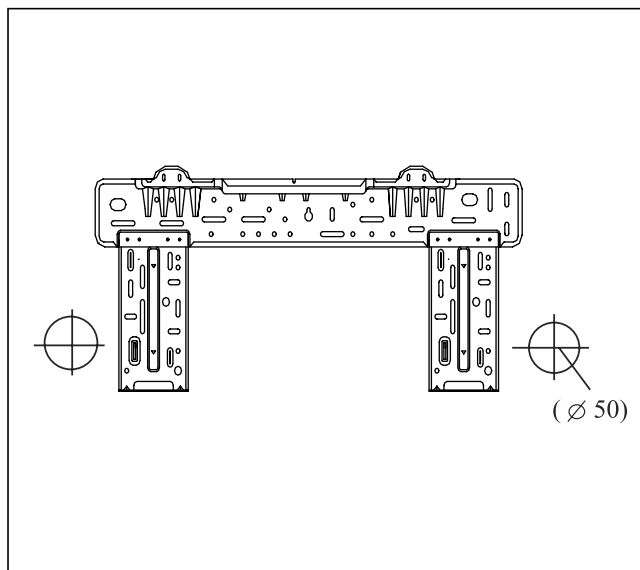
Place the pipes (for liquid and gas) through the hole in the wall from the outside, or alternatively from the inside after having completed the installation of the pipes and the connection of the cables on the indoor unit, for connection to the outdoor unit.

Decide whether to remove the plastic segment, according to the direction of the pipes.

✎ When the pipe is fastened along the direction 1, 2 or 4, remove the corresponding plastic segment from the base of the indoor unit.

After having connected the pipes according to the instructions, install the drain hose. Then install the power supply cables. After having completed the connections, wrap the pipes, cables and drain hose in a layer of thermal insulation.

✎ Line the joints of the pipe with thermal insulation and cover them with vinyl tape.



Thermal insulation lining

- Position the drain hose under the pipes.
- Insulation material: polythene foam, thickness greater than 6mm.

 **The drain hose must be supplied by the user.**

- The drain hose must run downwards, to assist drainage.
- Do not bend the drain hose, allow it to protrude, twist it or immerse the end in water. If the drain hose is connected to an extension, check that this is thermally insulated when running in the indoor unit.
- If the pipes run to the right, the pipes, the power cable and the drain hose must be thermally insulated and fastened to the rear of the unit by a pipe coupling.
 1. Insert the pipe coupling in the opening.
 2. Press the pipe coupling to secure it to the base.

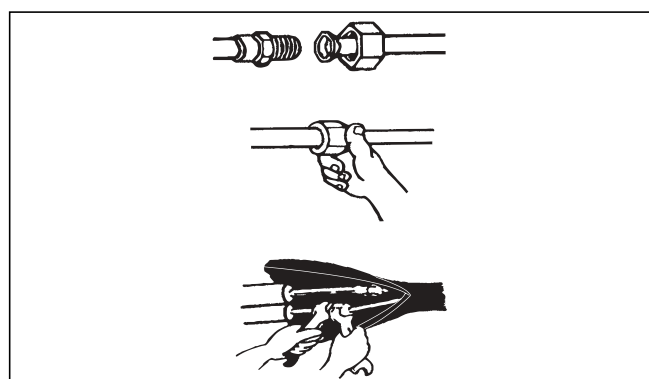
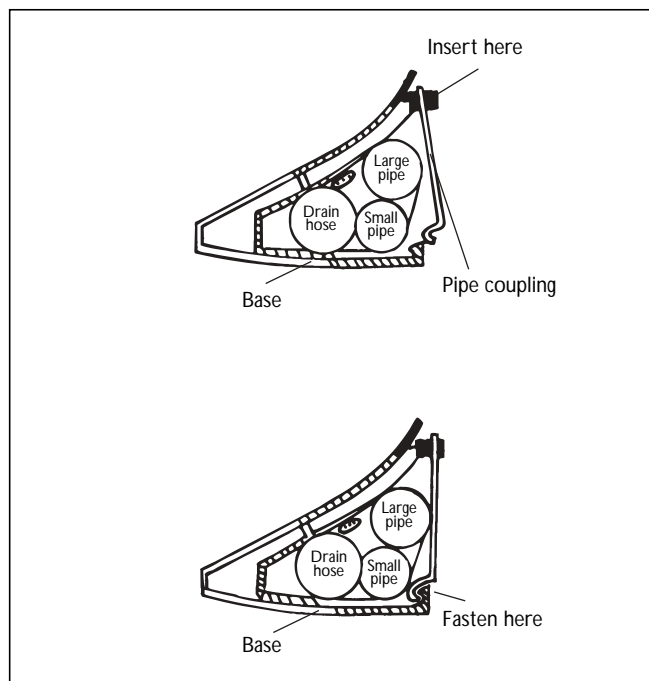
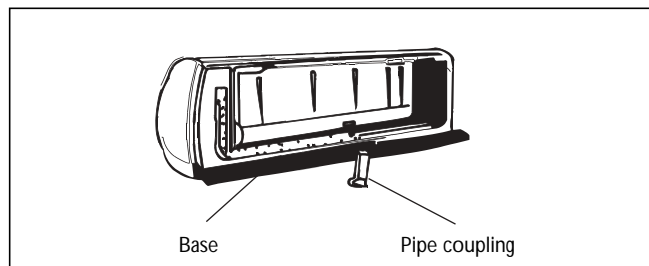
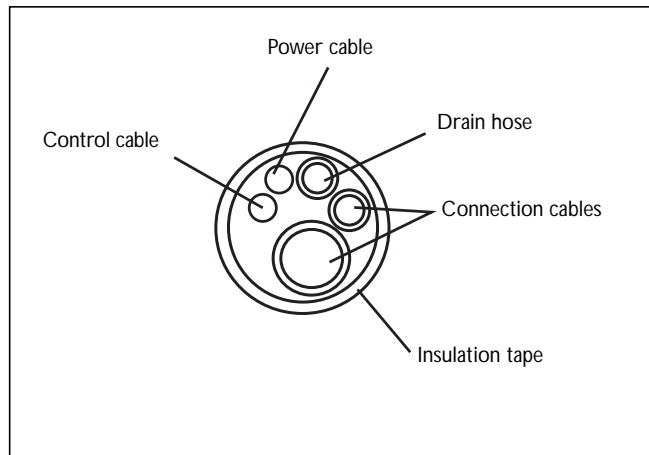
Connecting the pipes

- Connect the pipes to the indoor unit using two spanners. Pay careful attention to the torque specified below to avoid deforming and damaging the pipes, connectors and countersunk nuts.
- First tighten by hand, and then use the spanners.

Model	Pipe dimensions	Torque	Nut
7-9-12-17,3 K	Liquid side (ø 6 o 1/4")	1,8 Kg.m	17 mm
23,5- 30 K	Liquid side (ø 10 o 3/8")	3,5 Kg.m	22 mm
7-9 K	Gas side (ø 10 o 3/8")	3,5 Kg.m	22 mm
12-17,3 K	Gas side (ø 12 o 1/2")	5,5 Kg.m	24 mm
23,5 - 30 K	Gas side (ø 16 o 5/8")	7,5 Kg.m	27 mm

Model	Q/m (1)
7 - 9 - 12 - 17,3 K	10 g/m
23,5 - 30K	20 g/m

(1) Quantity of refrigerant for each metre of pipe over the 5 m.



3. CONNECTING THE CABLE

Indoor unit

Connect the power cable to the indoor unit by connecting the wires to the terminals on the control panel individually, according to the connection to the outdoor unit.

- ✎ To make the connection to the indoor unit terminal, remove the console.

Outdoor unit

Remove the access door from the unit by loosening the screw. Connect the wires to the terminal on the control panel with a terminal screw.

Place the access door back in position and tighten the screw.

- ✎ Use an approved switch between the power supply source and the unit. An isolating device must be fitted to correctly disconnect all the power supply lines.

Use a separate power supply circuit specifically for the air-conditioner. For details on the wiring method, refer to the circuit diagram inside the access door.

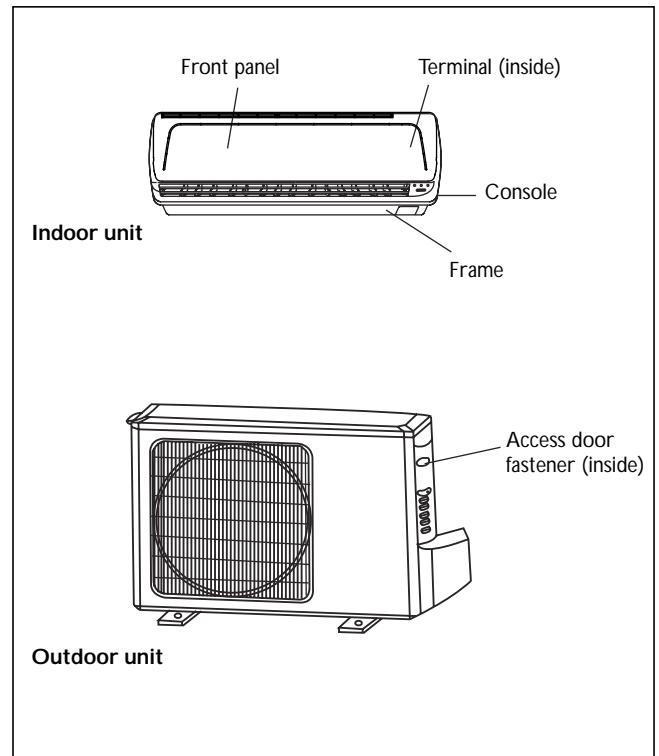
Check that the thickness of the cable complies with the specifications of the power supply.

Check the wires and make sure that they are all securely fastened following the connection of the cable.

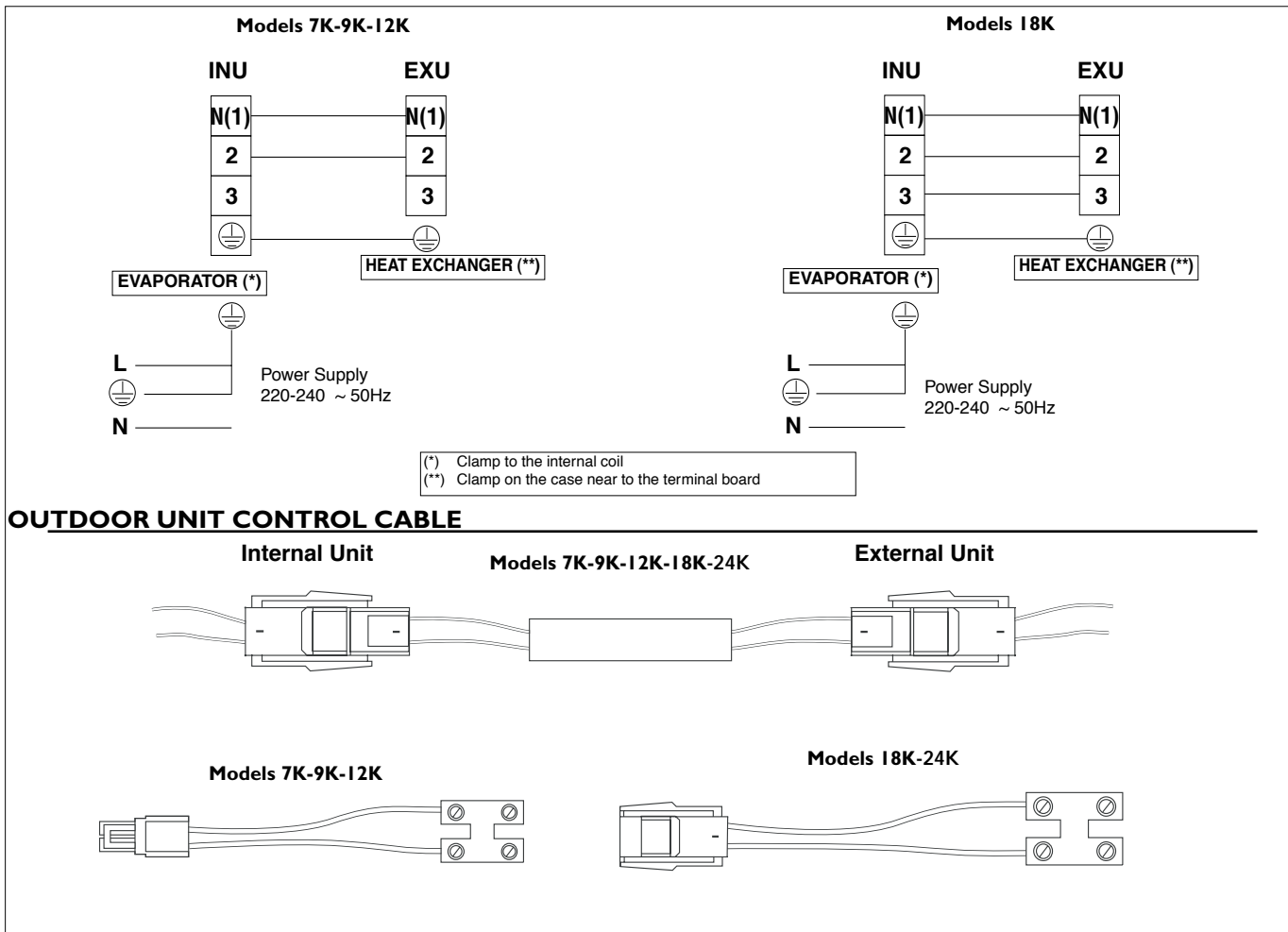
Make sure an earth leakage switch is installed in wet or damp areas.

The connection cable between the outdoor and indoor unit must be suitable for outdoor use.

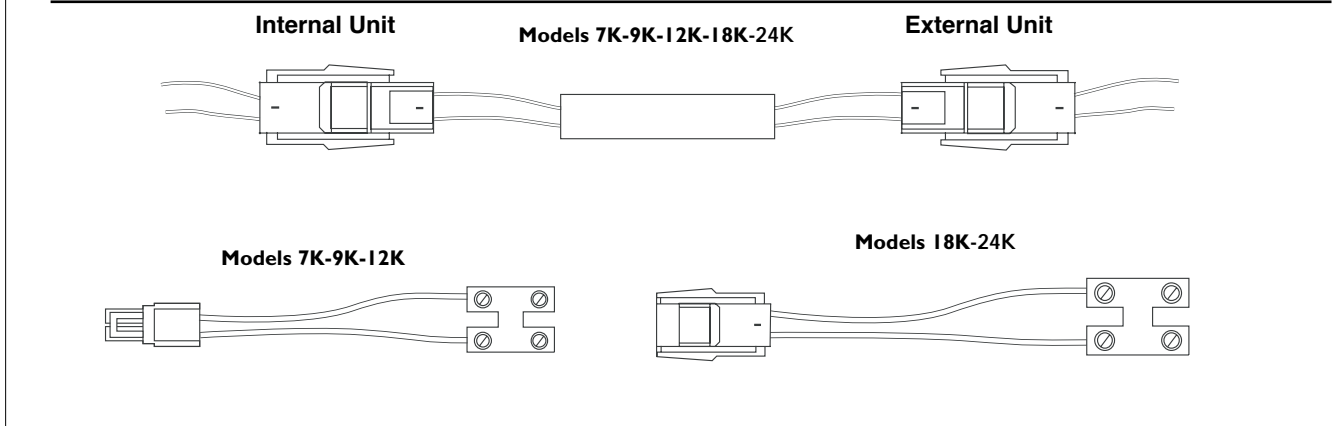
The plug must remain accessible following the installation of the appliance, so that the appliance can be unplugged if required. If this is not possible, connect the appliance to a two-pole switch, with a distance between the contacts of at least 3mm, which must be installed in an accessible position.



CONNECTION DIAGRAM 7K - 9K 12K -18K

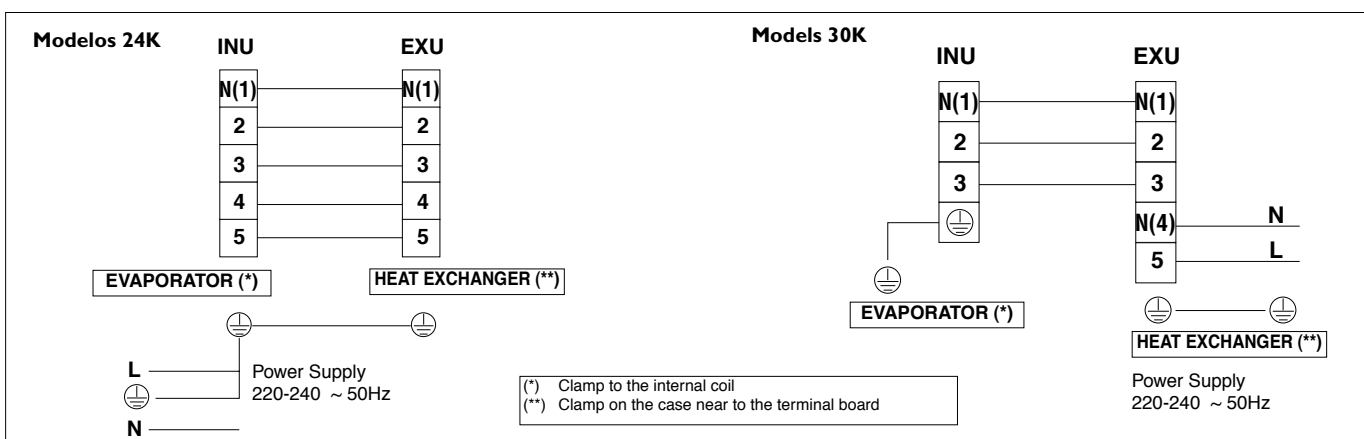


OUTDOOR UNIT CONTROL CABLE



For connections between the indoor and outdoor unit exceeding 5 metres (standard cable supplied), two quick connectors are supplied (see the figure).

CONNECTION DIAGRAM 24K - 30K



- Check that the number of the connection on the outdoor unit and the terminal block are the same as those on the indoor unit.
- All the electrical connections must be performed by specialist technicians, in accordance with the legislation in force in the country concerned. Respect the sequence and the colour of the cables when using the two connectors supplied.
- Electric wiring put to earth of external unit
 - The indoor unit is already put to earth.
 - The outdoor unit must be put to earth by the fitter: connect a ground wire - not included - between the free thread hole closed to the coil of the unit and the outdoor unit where there are the other wire connections.

1. Install the drain fitting and the drain hose (heat pump model only)

The condensate is drained from the outdoor unit when the appliance operates in heating mode. To avoid disturbing neighbours and to respect the environment, install a drain fitting and a drain hose to convey the condensate. Simply install the drain fitting and the rubber washer on the chassis of the outdoor unit, then connect a drain hose as shown in the figure.

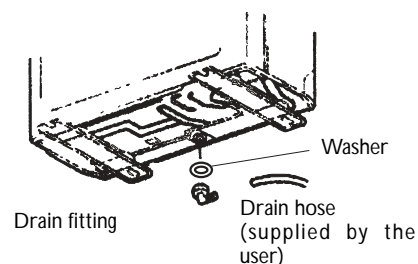
2. Installation and fastening of the outdoor unit

Bolt the unit securely to a level and sturdy floor. If the unit is to be installed on a wall or on the roof, make sure the support is fastened securely to prevent it from moving following intense vibrations or strong winds.

3. Connecting the pipe to the outdoor unit

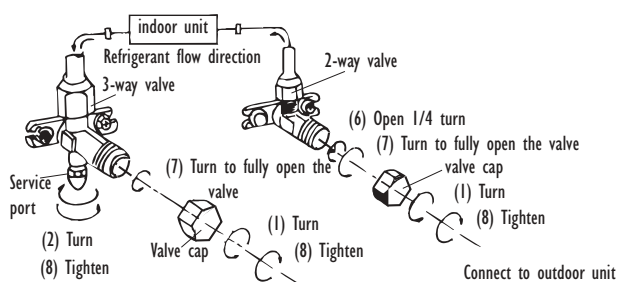
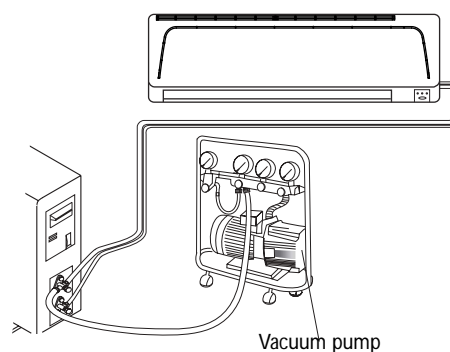
Remove the cap from the 2- and 3-way valves. Connect the pipes to the 2- and 3-way valves separately, tightening to the torque specified.

4. Connecting the cable to the outdoor unit (see the previous page)



The air that contains moisture remaining inside the refrigerant circuit may cause problems to the compressor. After having connected the indoor and outdoor unit, vent the air and the moisture from the refrigerant circuit using a vacuum pump.

- (1) Unscrew and remove the caps from the 2- and 3-way valves.
- (2) Unscrew and remove the cap from the service valve.
- (3) Connect the vacuum pump hose to the valve being used.
- (4) Run the vacuum pump for 10-15 minutes, until reaching an absolute depression of 10mm Hg.
- (5) With the vacuum pump still on, close the low pressure knob on the vacuum pump hose. Then stop the vacuum pump.
- (6) Open the 2-way valve a 1/4 of a turn, then close it again after 10 seconds. Check the seal of all the joints using liquid soap or an electronic leak detector.
- (7) Turn the body of the 2- and 3-way valves. Disconnect the vacuum pump hose.
- (8) Reposition and tighten all the caps on the valves.



- Read this manual before installing and use the appliance.
- Check that air does not enter the refrigerant system and that there are no leaks of refrigerant when the air-conditioner is moved.
- Run a test cycle after the installation of the air-conditioner and record the operating data.
- The type of fuse installed on the indoor control unit is rated to 3.15A, T, 250V.
- The user must fit the entire unit with a fuse suitable for the maximum input current or use another safety cut-out device.
- The plug must remain accessible following the installation of the appliance, so that the appliance can be unplugged if required.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

