

Dear Sir/Madam

We thank you for purchasing this Pinguino appliance and congratulate you on your wise choice.

Please make the time and effort to read this manual carefully.

Becoming familiar with the Pinguino is an essential step if you are to benefit fully from its exceptional qualities, during both installation and actual use.

We hope that the Pinguino will become a welcome friend this summer, a source of comfort and refreshment.

Best wishes

De Longhi S.p.A.

GENERAL DESCRIPTION

The PAC 30 ELECTRONIC is an extremely versatile air-conditioner, performing its air cooling function through either water condensation or air condensation.

The user can choose between the two functions:

- 1) **WATER FUNCTION** - For economical, highly efficient and rapid air cooling. This function is recommended when the appliance is first switched on and the environment is particularly hot.
- 2) **AIR FUNCTION** - For less intense cooling. A more convenient function (no need to fill water container).

The versatility of this appliance is demonstrated by its ability to switch automatically to air function whenever the water container is empty.

The PAC 30 ELECTRONIC can also be used as a heater during the winter months.

The PAC 30 ELECTRONIC sets the temperature automatically.

TECHNICAL DATA

Tab.1

	WATER FUNCTION - AIR FUNCTION
Power supply voltage (V)	see rating label
Frequency (Hz)	"
* Cooling capacity (Frig/h, W, Btu/h)	"
Cooling capacity (Frig/h, W, Btu/h)	"
Electric power consumption (A)	"
Max.power consumption (air-condit.mode) (W)	"
Max.power consumption (heating mode) (W)	"
Air flow capacity (m ³ /h)	360
Timer	24 h
Dimensions: width (mm)	560
height	725
depth	365
Net weight (kg)	44
Technical data subject to change without prior notice	

* According to standard ASHRAE 128P

NB. When indoor temperature exceeds 32°C, the appliance should be operated with water.

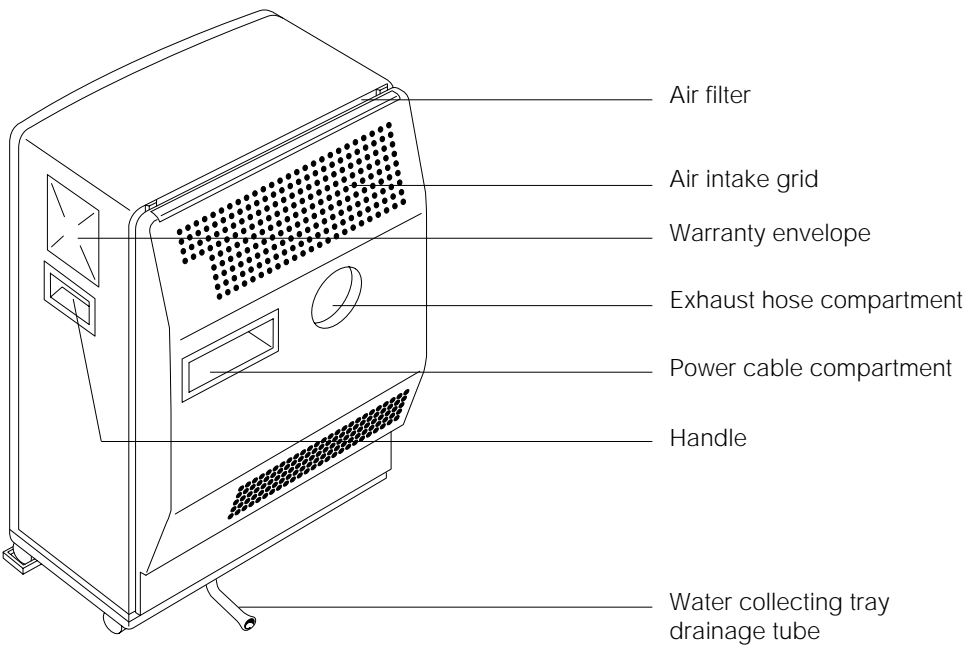
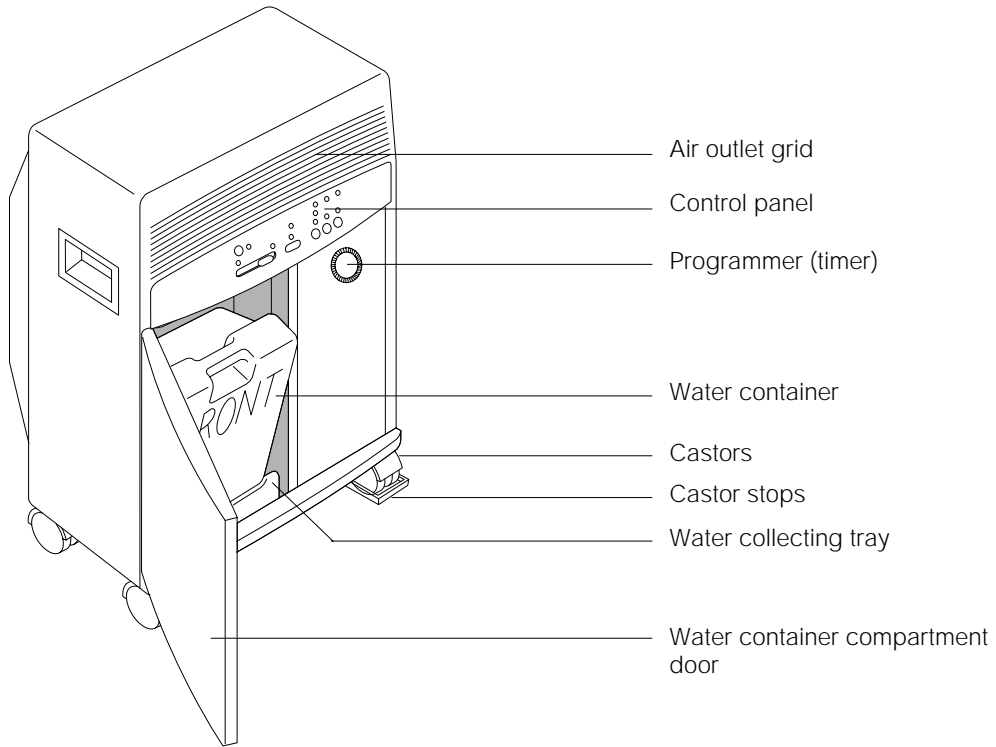
IDEAL OPERATING CONDITIONS (AIR-CONDITIONING FUNCTION)

Tab.2

ROOM TEMPERATURE		21 ÷ 32°C
ROOM HUMIDITY FACTOR		BELOW 80%
POWER SUPPLY	FREQUENCY	see rating label
	VOLTAGE	see rating label




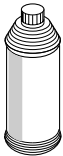


DESCRIPTION OF MAIN FEATURES

Tab.3



DESCRIPTION OF ACCESSORIES

Tab.4

	DESCRIPTION	PARTS SUPPLIED
	Exhaust hose	1
	Stopper + flange	1
	Castor stop	2
	De-scaling fluid	1
	Window nozzle	1
	Suction cup set	1

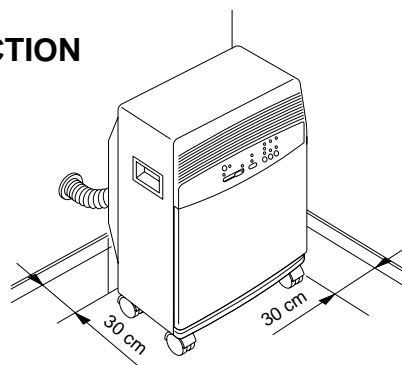
ACCESSORY CHECK

Check that all parts listed in Table 4 are included.

INSTALLATION FOR AIR-CONDITIONING FUNCTION

Our air-conditioner is portable and versatile: it can be used as a **permanent installation** or wise easily moved from one room to another.

The appliance must be fitted at least 30 cm. from the surrounding walls.

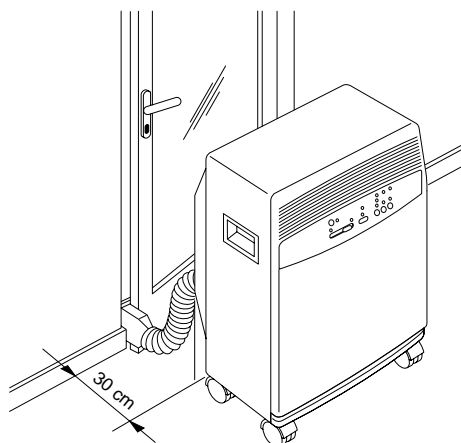


When installed permanently, all air discharged from the rear hose is extracted from the room in which the PAC 30 ELECTRONIC is installed.

Check that the room (particularly if it is small) is not "air-tight"; a drop in pressure could cause a malfunction and thereby activate the safety switch. Air entering the room through door and window cracks is normally sufficient. If necessary, leave a door slightly ajar (a gap of approx. 1 cm. is adequate).

The unit can also be used as a "temporary" installation for use in any room with a window or french window; this "temporary" installation can be used at any time until it is ready for permanent instalment.

N.B.: In either case, check that the unit is resting on at "**perfectly level**" surface. If necessary, use the 2 castor stops for the front castors.



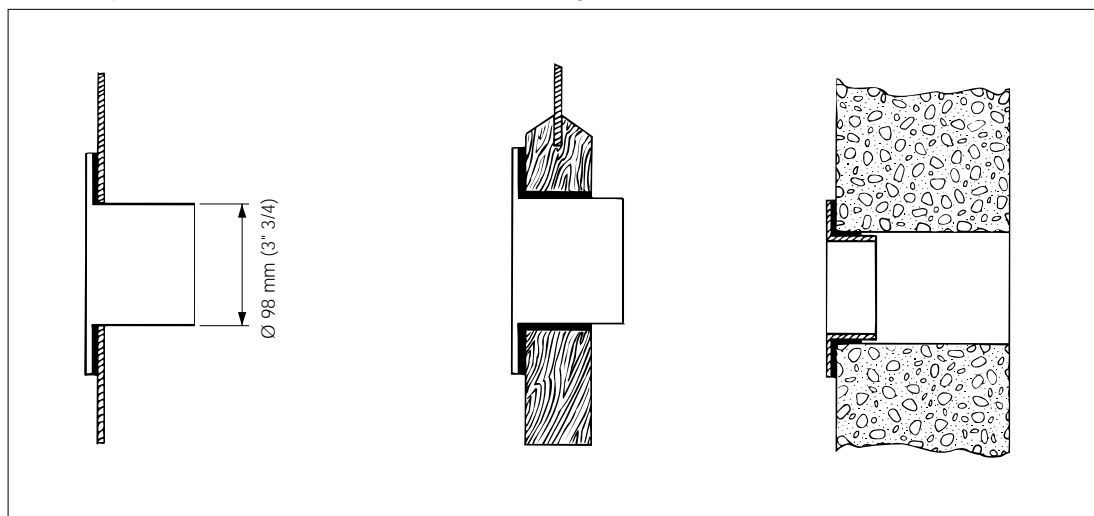
Permanent installation

The outlet holes must be connected to the outside of the building and cannot be made in any wall or panel.

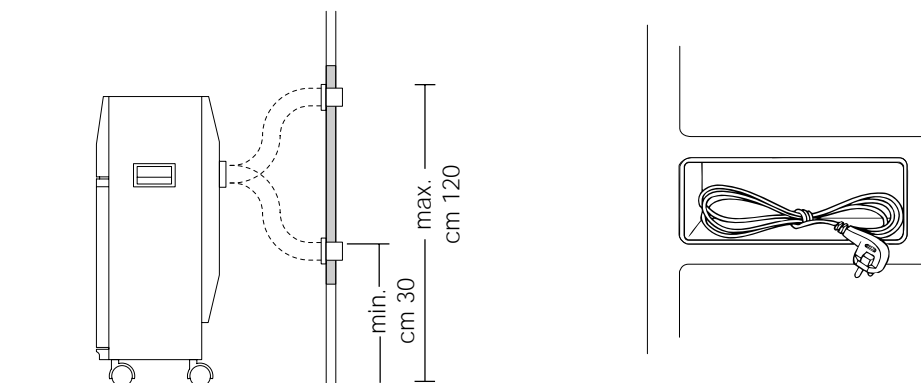
A1
in a window pane

A2 through the wooden
base-section of a glass door

A3
in the wall

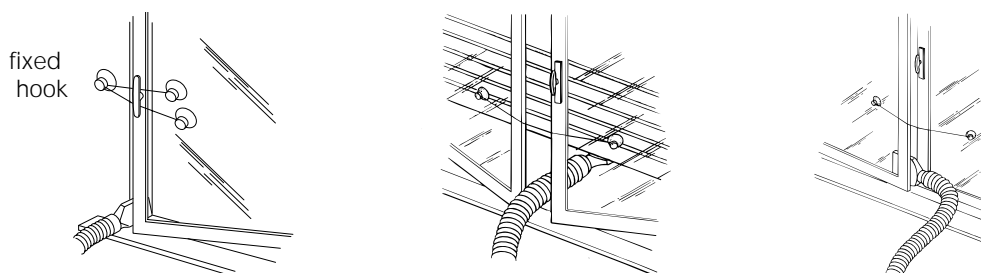


Height of outlet:
within the range indicated by the dotted line in the figure below.



When the unit is not in use, the outlet hole should be sealed with the stopper supplied.

Temporary installation: The outlet holes can be connected in a number of ways:



In any event, for maximum cooling efficiency the window should be closed as much as possible.

It is advisable :

- to keep the outlet free of any obstruction;
- to lower the blind partly, without obstructing the outlet, thereby reducing exposure to direct sunlight and indoor/outdoor air exchange.

INSTALLATION FOR HEATING FUNCTION

The unit is simply placed in the room to be heated; there is no need for the discharge hose to be installed.

ELECTRICAL CONNECTIONS

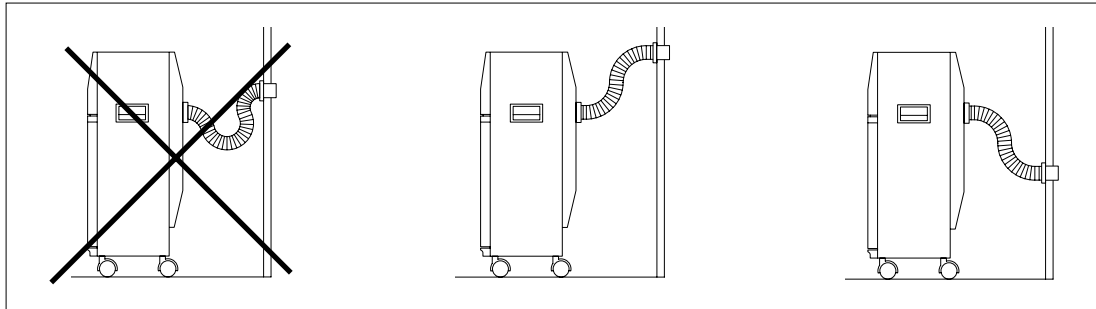
- The mains supply, suitable for domestic electrical appliances, must correspond to the power requirements of the air conditioner (see rating label).
- Check that the power supply voltage correspond to the voltage shown in the rating label.
- Check that the mains socket is correctly earthed.

N.B.: In the event that the plug supplied with the air-conditioner and complying with European regulations (EEC 7, VII) is not suitable for your wall socket, make sure that it is replaced with a plug with a capacity of at least 10 A - 250 V (IMQ) that is also suitably earthed. Remove the power cable from the storage compartment at the back of the unit and plug it into the socket.

THIS APPLIANCE IS MANUFACTURED TO COMPLY WITH THE RADIO INTERFERENCE REQUIREMENTS PROVIDED BY DIRECTIVE EN 55014 EEC.

PREPARING THE UNIT FOR USE

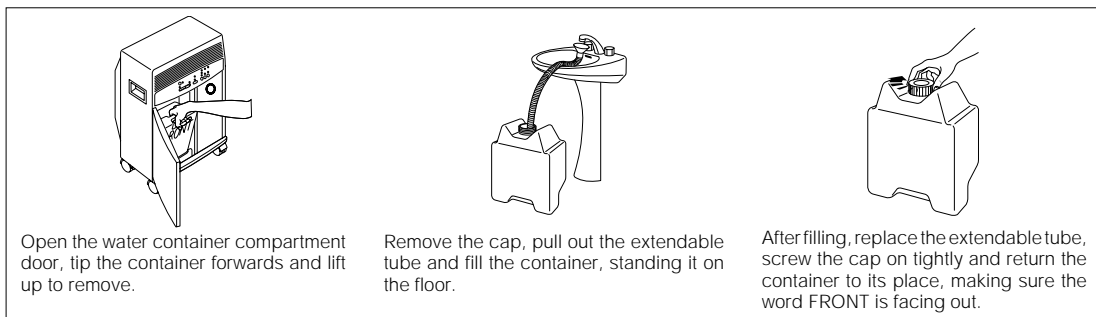
- 1) For permanent installation, place the appliance near the wall or window outlet. Make sure it is standing on a level surface and fit the special shock absorbers/castor stops underneath the castors.
- 2) The exhaust hose can be compressed or extended between 500 mm. and 1400 mm., but is best used at minimum length. **Never stretch the hose.**



HOW TO PREPARE WATER CONTAINER

Use only clean, salt-free tap water. The water is essential for the air cooling operation and is discharged in the form of steam through the exhaust outlet. A container full of water lasts for a period that depends on a number of conditions such as temperature, humidity, insulation, exposure of the room, number of people present, etc. On average it will last approximately 7 to 10 hours.

When the container is empty, the appliance automatically changes function from water to air. At the same time, the quantity of air discharged from the rear hose will increase.



During “water condensation” cooling function and in particularly quiet surroundings (eg. bedroom), a slight gurgling noise may be heard. This may be regarded as perfectly normal.

Warning: Do not use water containing salt, eg. seawater or water treated using softening systems that utilize kitchen salt.

AIR COOLING FUNCTION

If the air cooling function of PAC 30 ELECTRONIC is chosen, it is sufficient not to fill the water container.

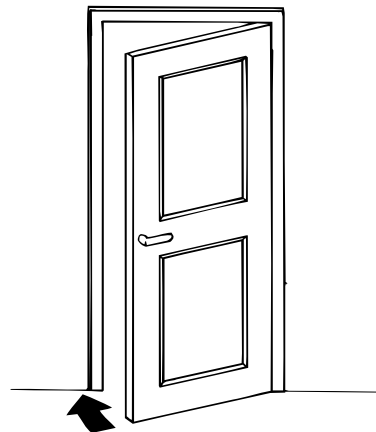
FINAL CHECK

In order to obtain maximum performance from your air-conditioner, make sure that:

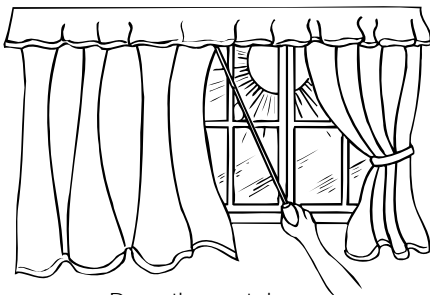
- doors and windows in the room to be air-conditioned are closed (with the sole exception of the partially opened window necessary for "temporary" installation)



Close the windows



Close the doors

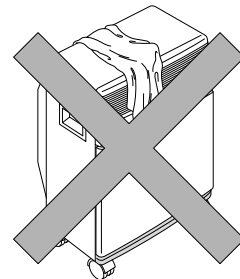


Draw the curtains



Lower the blinds

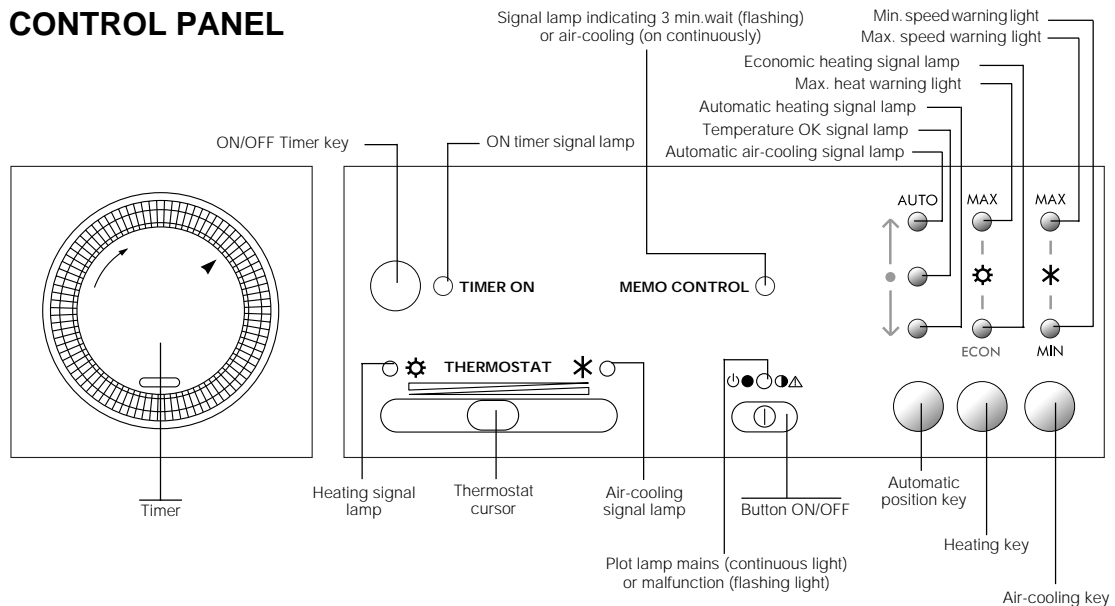
- the room is well shaded from direct sunlight by drawing curtains and/or partially lowering blinds or shutters, to avoid excessive energy consumption
- the intake and outlet vents are free of any obstruction at all times
- there are no sources of heat in the room.



Do not cover

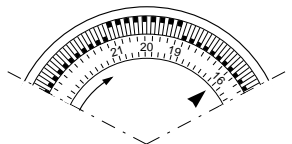
THE AIR-CONDITIONER IS NOW READY FOR USE, so let's now take a look at the controls.

CONTROL PANEL



SETTING THE TIMER

The programmer/timer, like all clocks, must be set to the exact time. If for example it is 4.00 pm. (16.00), turn the dial in a clockwise direction (following the direction of the arrow) until the number 16 is lined up with the triangular pointer (the arrows indicates 4:00 P.M. approximately).



N.B.: Never turn the dial in an anti-clockwise direction!

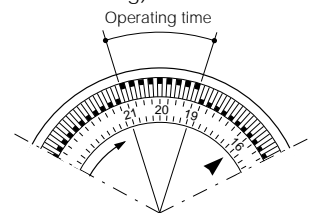
The timer is in effect, an electric clock and works only if the plug is connected to the power supply. Whenever the plug is disconnected or there is a power failure, the programmer stops (the clock is then "slow") and must be re-set.

The Pinguino can be used for either AIR-COOLING or HEATING.

The unit can be used in either programmed or non-programmed mode.

PROGRAMMED MODE

- 1) Select the desired function as shown in the chart overleaf.
- 2) Press the TIMER key, the "TIMER ON" signal light will come ON.
- 3) Make sure that the timer indicates the correct time (see instructions on setting).



- 4) Set the operating times by pushing out the notches on the dial corresponding to the period required (each notch represents 15 mins.) The unit will now switch on and off each day at the selected times.

N.B.: To override the programmed operating times, simply press the ON/OFF key (the timer signal lamp ON will go out)

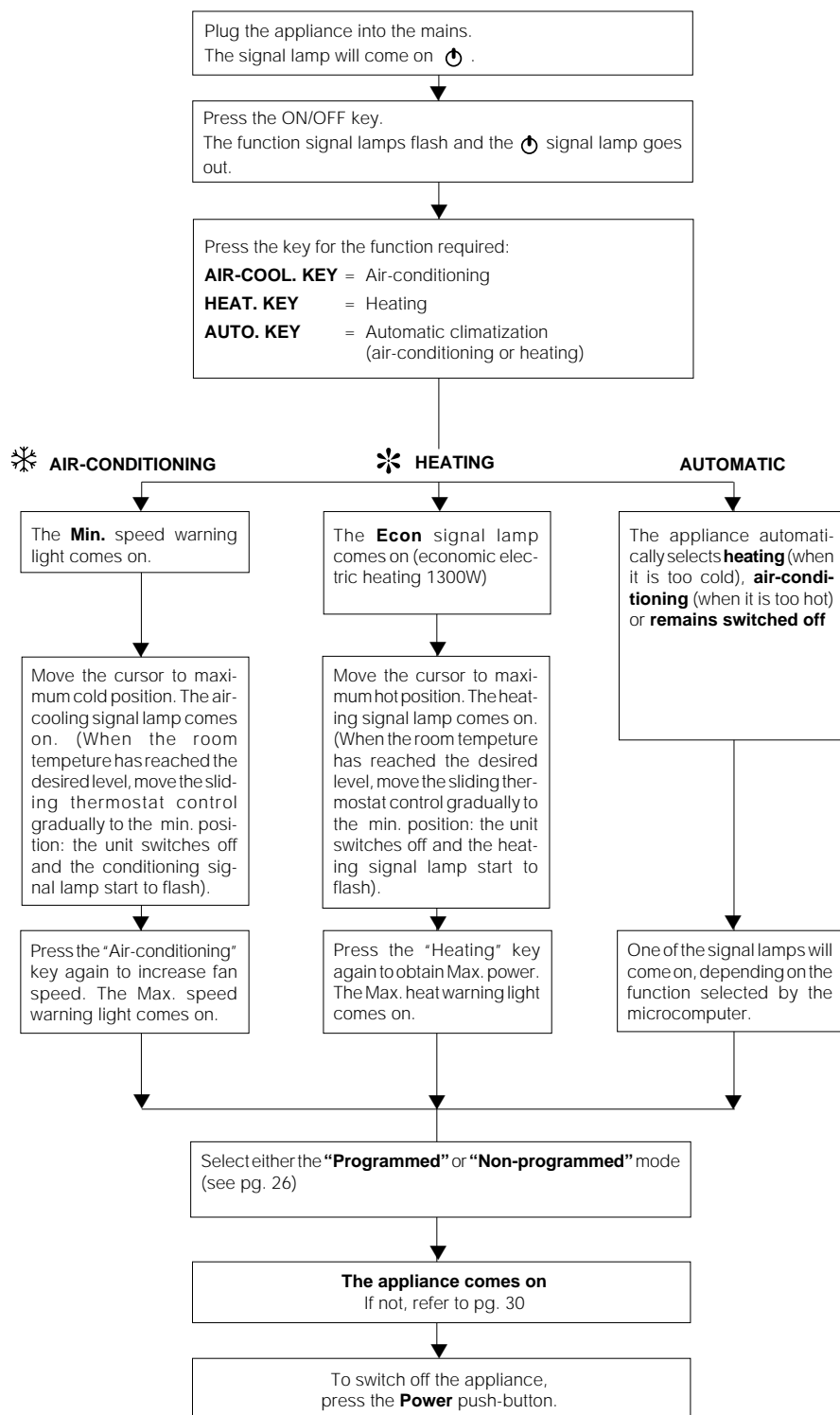
NON-PROGRAMMED MODE

- 1) Press the TIMER ON key again, the TIMER ON signal lamp will go out).
- 2) Select the desired function as shown in the chart on pg. 27.

NB. For technical reasons, the temperature is not expressed in degrees but by a line increasing in thickness. We therefore recommend that when starting up the appliance, the thermostat be turned to maximum (thick green line = maximum cold, thick pink line = maximum hot). When the desired temperature has been reached, move the cursor slowly away from the maximum cold or maximum hot position until the appliance is switched off by operation of the thermostat. In this way the appliance has been programmed with the exact temperature degree required, which is then maintained automatically by the thermostat.

This appliance is fitted with a safety device that blocks its operation if at least 3 minutes have not elapsed from when it was last switched off.

HOW TO START UP THE CONDITIONER (see control panel on the opposite page)



SPECIAL PRECAUTIONS

- The appliance must be earthed as indicated in the installation instructions. The manufacturer will not accept responsibility for any damage arising if these safety regulations are not complied with.
- If the power supply cable is replaced, use only type HO5VV-F, 3x1 mm² diameter cables.
- Never pull the power lead when moving the appliance.
- Ensure that the outdoor end of the exhaust hose is kept obstruction free.
- Avoid using the air-conditioner in oily or sulphurous atmospheres or near sources of heat.
- Before moving the air-conditioner, empty the water from the collecting tray through the drainage tube.
- Never place hot or heavy objects on the appliance.
- Clean the air filter once a week.
- Avoid the use of extension leads. If it is necessary to lengthen the power lead, consult a qualified electrician.
- **Transport by car.** If it is not possible to transport the appliance in an upright position, then either lay it on its right side (opposite side to water container) or on its back, protecting the air outlet with a piece of cardboard or polystyrene and first removing the exhaust hose.

SERVICING

PRECAUTIONS: during cleaning and normal maintenance operations, remember to disconnect the plug. Under no circumstances should the appliance be washed with running water. Damage could be caused to the electrical circuit.

AIR-FILTER CLEANING

- A clogged air filter reduces air circulation and the efficiency of the appliance. Clean the filter once a week.
- To remove the filter, pull it up gently. Push down to replace.
- Use a vacuum cleaner to remove dust deposited on the filter. If it is very dirty, soak it in lukewarm water and rinse thoroughly. The temperature of the water must be kept below 40°C. After washing, leave the filter to dry before replacing.

CLEANING EXTERNAL HOUSING

Clean with a damp cloth and rub over with a clean dry cloth.

PRECAUTIONS: never use petrol, oil or similar solvents for cleaning. Never spray insecticides or similar liquids. Serious damage may result to paintwork and plastic.

CLEANING COLLECTING TRAY

The collecting tray should be cleaned at least once a month to prevent dirt from accumulating after prolonged use.

- 1) Switch off the appliance and disconnect the plug;
- 2) Open the water container compartment door and remove the container;
- 3) Remove the plug from the drainage tube situated at the back of the appliance and empty the water into a bowl;
- 4) Once the container has been fully drained, replace the plug;
- 5) Remove any dirt from the surface below the container, rubbing with a cloth.

CONTROLS AT BEGINNING OF SEASON




Check that the condition of the power lead and socket.
Follow all installation procedures with maximum attention.

END OF SEASON OPERATIONS

- 1) De-scale the unit. (see pg. 31)
- 2) Empty the water collecting tray.
- 3) Let the fan run for about half an hour to dry the inside of the air-conditioner
- 4) Switch off the unit and disconnect the plug from the power supply.
- 5) Remove the exhaust hose
- 6) Clean the filter and dry well before replacing
- 7) Cover the appliance with a polythene bag to prevent dust from entering.

TROUBLESHOOTING

A malfunction or defect may only be the result of a minor problem which can be easily resolved without assistance. Look through this checklist therefore, before contacting the Authorised Service Centre operating in your area.

PROBLEM	CAUSE	REMEDY
The air-conditioner does not work	<ul style="list-style-type: none"> pilot lamp  is OFF <ul style="list-style-type: none"> power failure plug is disconnected Memo Control signal lamp is flashing <ul style="list-style-type: none"> three minutes have not elapsed since unit last switched off Signal lamp flashing  <ul style="list-style-type: none"> air-conditioning function: room temperature below set level Signal lamp flashing  <ul style="list-style-type: none"> heating function: room temperature exceeds set level 	<ul style="list-style-type: none"> wait connect plug wait three minutes turn thermostat cursor slowly to maximum cold turn thermostat cursor slowly to maximum hot
The air-conditioner functions for only short periods as safety has been enabled. The function OK signal lamp flashes.	<ul style="list-style-type: none"> Exhaust hose is blocked Exhaust hose is bent Condensator fan is blocked There are discrepancies in the control card 	<ul style="list-style-type: none"> check whether discharge of air to outside is obstructed in any way. Press the ON/OFF pushbutton to start up the unit again. straighten it contact Service Centre contact Service Centre
General switch keeps activating		<ul style="list-style-type: none"> switch off appliance and contact Service Centre
The appliance works but does not cool the environment sufficiently	<ul style="list-style-type: none"> Window open Source of heat in room (heater, lamp, etc.) or room is overcrowded Exhaust hose is disconnected Thermostat regulated too high Air filter clogged The capacity of the conditioner is not adequate for the size of the room 	<ul style="list-style-type: none"> close the window remove heat source reconnect tube lower thermostat setting clean filter
The appliance does not heat the environment sufficiently	<ul style="list-style-type: none"> The safety thermostat on the heating element has been activated 	<ul style="list-style-type: none"> to reset the unit, disconnect it from mains for a few minutes, eliminate the cause of overheating and then reconnect.

Periodic Servicing (IMPORTANT)

This appliance should be de-scaled whenever the calcium deposit becomes excessive (on average after 400 operating hours) or in any event at least once every season.

INSTRUCTIONS FOR DE-SCALING

You will need: 1/4 liter de-scaling fluid
(supplied with appliance)
1 liter clean water
= **80% dilution**

- a) Remove the container from the unit and drain away any water left in the collecting tray with the drainage tube.
- b) Seal the drainage tube. Pour 1/4 liter of de-scaling fluid and 1 l clean water into the collecting tray situated under the container, at the bottom of the unit.
- c) Leave the air-conditioner to operate for about half an hour.
- d) Drain away all the fluid left in the tray and rinse thoroughly. The drainage tube should be open and the appliance switched on during draining.
- e) Disconnect the plug from the mains and clean the collecting tray thoroughly with a clean cloth.
- f) Once the tray is clean, the appliance can resume normal operation.

IF, WHEN RESTARTING THE APPLIANCE AFTER CLEANING, TRACES OF FOAM ARE FOUND IN THE WATER, THIS IS NORMAL. IF HOWEVER A LARGE QUANTITY OF FOAM IS NOTED, RINSE THE APPLIANCE ONCE AGAIN.

FURTHER SUPPLIES OF DE-SCALING FLUID CAN BE OBTAINED FROM YOUR LOCAL DE LONGHI SERVICE CENTRE.

ATTENTION

The use of products other than those supplied by De Longhi may cause damage to interior components, thereby invalidating the guarantee.