# Important safeguards

- Use this appliance only as described in this instruction manual.
   As with any electrical appliance, whilst the instructions aim to cover as many eventualities as possible caution and common sense should be applied when operating and installing this air conditioner.
- This appliance has been manufactured to cool and de-humidify domestic environments and should not be used for other purposes.
- It is dangerous to alter or modify the unit's characteristics in any way.
- The appliance must be installed in line with the relevant national legislation.
- Should repairs be necessary, contact the nearest authorised Repair Service Centre. Unauthorised servicing can be dangerous.
- This appliance is to be used by adults only; keep away from children.
- In the case that the power cable becomes damaged, this must be substituted only by specialised
  personnel authorised by the manufacturer.
- Always ensure the appliance is earthed. If you have any doubts check with a qualified electrician.
- Avoid using extension leads with the unit.
- Before cleaning or maintenance operations, always unplug the unit from the socket.
- Do not pull on or place strain on the power cable when moving the appliance.
- The appliance should not be installed where the atmosphere may contain combustible gases, oil or sulphur, or near heat sources.
- If the appliance is utilised in areas where there is no ventilation of air, it is necessary to take precautions to avoid that the refrigerant gases that may leak from the appliance do not remain in the room, thereby causing a fire hazard.
- This appliance must be utilised and installed only in rooms with a total volume of 15 cubic metres
  or greater.
- The refrigerant used in this appliance would cause damage to the ozone layer if relased into the atmosphere. Therefore at the end of the working life of the appliance the unit should be taken to a recycling centre for disposal of the refrigerant.
- Keep the unit at least 50 cm away from inflammable substances (alcohol etc) or pressurised containers (eg. aerosol cans).
- Do not rest hot or heavy objects onto the appliance.
- Clean the filters at least once a week.
- Remember to perform the descaling procedure at the end of each season (see page 25). In
  areas where the water is particularly hard (rich in minerals), the use of a commercial anti-lime
  product added to the water is recommended. This can be requested from De'Longhi LTD.
- Avoid using heaters near the unit.
- Do not cover this appliance with bags when is not in use
- Unventilated area where the appilance using flammable refrigerants is installed shall be so constructed that any leaked refrigerants will not stagnate so as to cause a fire or an explosion hazard caussed by igniting stagnant refrigerants from other source such as electric heater, stove and similar home applications.
- The unit should be transported in a vertical position. If this is not possible secure the unit at an angle, do not lie horizontally.
  - Before transporting the unit drain the condensation collecting-tray and tank. After transportation, wait at least 1 hour before switching on the unit.
- The packaging materials can be recycled. You are therefore recommended to place them in the special containers for differentiated waste collection.

## How does your Pinguino work

uring the summer, optimum comfort is achieved with a temperature of between 24 and 27°C and about 50% relative humidity.

An air conditioner removes moisture and heat from the room where it is located. One advantage of portable air conditioning units over fitted models is that they can be moved from one room to another in the home or even transferred between different buildings.

The hot air in your room is passed through a coil cooled by refrigerant gas, losing excess heat and moisture before being discharged again into the room. In single unit models (Pinguino), a small part of this air is used to cool the refrigerant gas before, hot and moist air is being discharged outside. In suitcase models, the circuit is cooled using the air outside.

Each Pinguino and Super-Pinguino can also be used as a fan only.

ECO by Pinguino is the latest generation of ecological air conditioners. Pinauino does not contain gases dangerous to the earth's ozone layer (CFC/HCFC). In addition, thanks to the extreme efficiency of the appliance, not only does it save you money on your electric bills, but it saves the environment by not negatively contributing to the greenhouse effect."



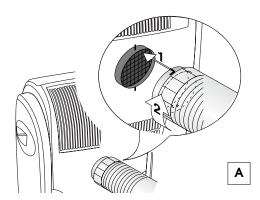
# Setting up

The following instructions will help you set up your air conditioning unit as efficiently as possible.

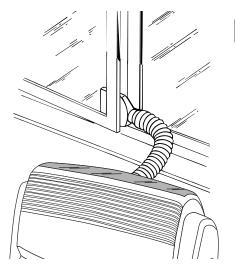
### AIR CONDITIONING WITHOUT INSTALLATION FOR INSTANT TEMPORARY USAGE

With just a few simple operations, Pinguino will restore comfortable conditions in your room:

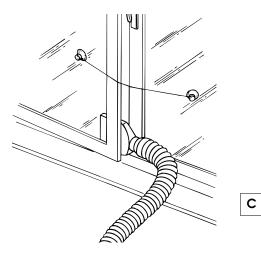
• Fix the exhaust hose 22 to the coupling 10 on the back of the unit as shown in figure A.



- Fix the window attachment 23 to the end of the hose 22.
- Place the unit near a window French window or door.
- Open the window, French window or door slightly and place the window attachment 23 as shown in figure B.



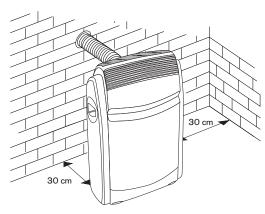
• With a double casement window, use the suckers 24 provided to hold the two halves of the window together (fig. C).



# Setting up

### AIR CONDITIONING WITH INSTALLATION

For more efficient use Pinguino can also be semi-permanently installed



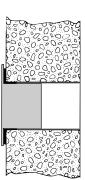
To install, proceed as follows:

- Make a hole in a outside wall or through the glass of a window. Check the height and dimensions given in figure  ${\bf D}$
- 106 mm



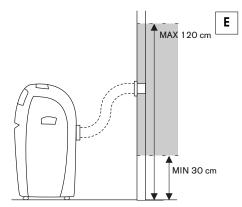


wood sill of a window



in the wall: for optimum results, insulate the section of the wall with suitable insu-lating material.

- Fit the flange 21 supplied to the hole.
- Fix the hose 22 to the coupling on the back of the unit (figure  $\mathbf{A}$ ).
- Attach the end of the hose 22 to the flange 21 as shown in the figure E.



When the hose 22 is not attached, close the hole with the bung on the flange 21.

### NOTE:

When the unit is installed semi-permanently, we recommend leaving a door slightly open (1 cm is enough) to ensure an adequate exchange of air.



# Preparation for use

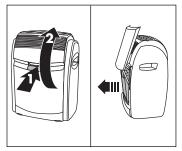
### HOW TO USE THE AIRCONDITIONER WITH WATER

These air conditioners can use both air and water to cool the condenser (the hot part) of the air conditioner.

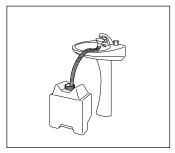
To utilise the full potential of your air conditioner, the tank 6 needs to be filled with water. The water is used. To increase the cooling power and reduce the noise level and energy consumption of the air conditioner. The water that is used in then expelled from the machine as water vapour through the exhaust hose | 22 | (it does not go into room).

Always use clean top water (which doesn't contain salts). As a rule the water will usually last about 8 hours however this depends on the conditions within the room, such as temperature, humidity, insulation and aspect and number of people. In turbo mode the water will also be used more quickly.

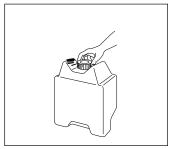
You may also use the airconditioner on air cooling only (without filling the water tank. If you only require the lower cooling power.



A) To open the front panel 4 grip either side of the panel and gently pull the panel towards you and upwards. Remove the tank **6** Lifting it forward.



B) Turn the tank upside down and remove the plug, remove the extendible tube and fill the tank, leaving it on the ground.



C) After completing the filling procedure, replace the extendible hose, replace the cap and screw it in tightly. Return the tank to its place, with the writing FRONT clearly visible. Carefully hold the panel in the centre and lower to its closed posi-

During the "water functioning" operation and in particularly silent locations (eg the bedroom) a slight gurgling sound may be heard. This is completely normal.

### IN HIGH HUMIDITY CONDITIONS

Water is extracted from the air in the room, this water is also used to cool the condenser. When the humidity is particulary high an excess of water may buid up in the internal tank. This can be drained by removing the bung from the drain hose  $\boxed{11}$  and draining into a suitable receptacle.

IMPORTANT: if the room temperature is 32°C or over the airconditioner must be operated with with water in the tank.

# Turning on and setting the timer

### **ELECTRICAL CONNECTION**

Before plugging in check that:

- the mains supply corresponds to the power supply shown on the rating plate;
- the socket and the mains lead correspond to the power requirements of the applian-
- the socket is suited to the plug, otherwise have the socket replaced:
- the socket is properly grounded.

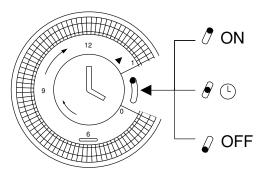
The manufactures cannot be held responsible for any damages due to failure in following normal safety procedures.

Replacement of the power cable must be carried out by qualified personnel.

### **USE OF THE TIMER**

Before setting the required function, check that the switch on the timer 15 is in position

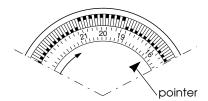
If you wish to use the timer, position the switch in the intermediate position (L) .



When the timer's on the OFF position, the appliance doesn't work.

### **SETTING THE TIMER**

The programmer/timer 16, 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 ).

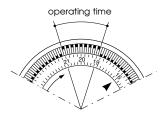


N.B.: Never turn the dial in an anti-clockwise direction!

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.

### PROGRAMMED MODE

- 1) Set the operating times by pushing out the notches on the dial corresponding to the period required (each notch represents 15
- 2) Make sure that the timer indicates the correct time (see instructions on setting).
- Select the desired function as shown in the chart overleaf.



Once programmed in this way, the appliance will repeat the pre-established program every day, if the selector is in the (1) position.

# Selecting functions

### AIR CONDITIONING FUNCTIONS

To turn the unit on in air conditioning mode, proceed as follows:

- 1. Rotate the function selector 19 dial clockwise:
- Place the large star symbol  $\frac{1}{X}$  in line with the reference mark to operate the unit in air conditioning mode at maximum fan speed (after 3 minutes the signal light 18 will come on ).
- Place the small star symbol  $\frac{1}{2}$  in line with the reference mark to operate the unit in air conditioning mode at minimum fan speed (after 3 minutes the signal light | 18 | will come on ).
- 3. Now set the required temperature by rotating the room thermostat dial 16.

The temperature is not expressed in degrees. We recommend that you turn the thermostat dial to the maximum position. When the desired room temperature has been reached, slowly turn the thermostat in a clockwise direction until it arrives at the position where a click can be heard. The temperature selected in this way will automatically be regulated and maintained, and save energy. When regulating the thermostat, the air conditioning function is temporarily interrupted and the unit continues to operate in fan only mode. In this way, the appliance keeps the air temperature within the room even.

### Delay on Start Up

- 1. A special safety device will delay the start of air conditionig by approximately 3 to 5 minutes when switching between functions or on initial start up.
- 2. You may also experience a slight delay between changing from one function to another.

### TURBO POWER (only for PAC60eco)

The Turbo Power mode was conceived to provide the appliance with a greater cooling potential. This is particularly useful when you want to bring the temperature of a very warm room quickly down to a more comfortable level. In this case:

Make sure that the tank is full of water (see page 22);

Make sure that the function selector switch 19 is in the large crystal position.

Press the Turbo Power button 14. The activation of the function will be signaled when the warning light | 13 | turns on.

After reaching the desired temperature, you can release the Turbo Power button and reposition the selector switch to the small crystal

X . Doing so will make the operation quiter.

## VENTILATION/FILTRATION

Rotate the function selector 19 anti-clockwise.

- Place the large symbol = in line with the reference mark to operate the unit at maximum fan speed. (the signal light | 17 | will come on).
- Place the small symbol  $\ge$  in line with the reference mark to operate the unit at minimum fan speed. (the signal light | 17 | will come on).

### PURIFICATION FILTER (only on some models)

The Symbol  $\approx$  on the control panel distinguishes the models which have been equipped with the purification filter. In addition to dust, this filter is able to capture even the smallest sized particles and impurities (up to 0.003 millimetres), such as cigarette smoke.

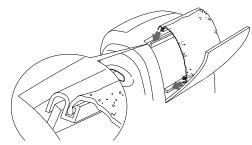
The purification filter should never be used with the dust filter, which is also included with the appliance. Therefore:

**A**. If you wish to use the purification filter:

Remove the purification filter from the filter housing; Remove the aspiration grill | 8 | (fig. G on page 24) and the dust filter which is attached to this. Remove the purification filter from its packaging. Anchor the filter to the appliance by attaching the two plastic pieces on the filter to the special supports on the air conditioner (see the illustration below). Set the dust filter aside.

**B**. If the dust filter is sufficient:

Remove the purification filter from the filter housing and set it aside.



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## Recommendations

### PROBLEM WARNING LIGHT

The lighted pilot light riangle indicates that the safety device of the pressure switch has switched on. In this case the appliance is deactivated. To restore the proper functioning of the appliance, eliminate the possible causes of the problem and press the restore button

The causes may be:

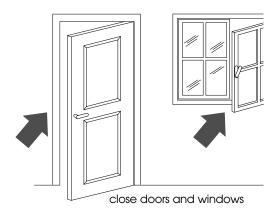
- 1) The exhaust hose forms a siphon in which condensation water has accumulated: in this case, it is necessary to drain the accumulated out of the machine, outwards (never towards the air conditioner) and eliminate the siphon on the hose.
- 2) The exhaust hose is obstructed: eliminate the obstacles which obstruct the expulsion of the air to the outside.

If, after having repositioned the drainage tube, the machine still does not start up, the problem might be more complicated (ex.: obstructed ventilation fan) and could require the assistance of the Authorised Service Centre.

### **RECOMMENDATIONS**

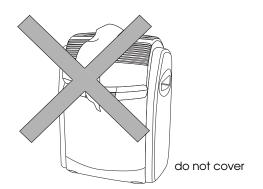
Follow these recommendations to achieve maximum efficiency from your air conditioning unit:

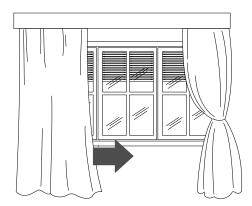
Close the doors and windows in the room



where the unit is functioning. The only exception is in the case of installation through a hole in the wall or window. In this case, you are recommended to allow a small amount of air to enter through a door or

- window to guarantee an adequate exchange of air.
- Protect the room from direct exposure to the sun's rays by drawing the curtains and/or partially lowering the blinds so as to maximise energy savings.
- Do not rest objects on the air conditioning
- Do not obstruct the air intake 8 or outlet
- Make sure there are no heat sources in the room.
- Do not use outdoors.





lower the blinds or draw the curtains

Make sure the unit is located on a level floor. If necessary, place the two blocking devices 25 under the front wheels.

## Maintenance

Before cleaning or maintenance, always turn the unit off by placing the selector in the "O" position and unplug from the mains.

### **CLEANING THE APPLIANCE**

We recommend cleaning the appliance with a slightly damp cloth then drying with a dry cloth. For safety reasons, do not wash the air conditioner with water.

### **Precautions**

Never clean with benzene, alcohol or solvents. Never spray liquid insecticide or similar.

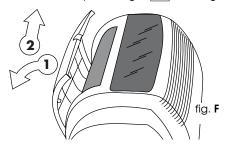
### **CLEANING THE FILTERS**

### **Dust filter**

All of the models are equipped with a dust filter able to capture the dust particles suspended in the air.

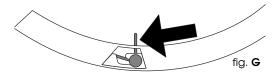
In order to maintain the effectiveness of your air conditioner unaltered over time, remember to clean the dust filter every two weeks.

1. Remove the aspiration grill **8**, (see fig. **F**);



2. Remove the filter holder housing by detaching it from the external grill. To detach it, press on the two wings found on the side of the filter holder (see fig. G)

Use a vacuum cleaner to remove the dust deposits on the filter. If the filter is very dirty,



immerse it in warm water, rinsing it thoroughly. The temperature of the water should be kept under 40°C.

After washing it, let the filter dry before reinserting it into the holder.

### **Purification filter**

Clean the external side of the purification filter once a week. Use a vacuum cleaner at an intermediate power level. Never clean the inside of the filter. Replace the purification filter at the end of each season or in any case, when it is no longer effective. The purification filter can be purchased in the store as an accessory or at an Authorised Service Centre as a replacement part. Alternatively, the dust filter included with the appliance may be used in place of the purification filter.

### CLEANING THE RESORVOIR 5

It is recommended that you clean this at least once a month using the following method:

- turn off the appliance and remove the plug from the electrical outlet.
- open<u>the</u> front panel **4** and remove the tank 6
- remove the bung from the drainage hose 11 which can be found at the back the air conditioner and empty out the water to a container.
- after draining off the water, replace the drainage hose plug.
- remove the dirt by scrubbing gently with a cloth where the tank is positioned.

### START OF SEASON CHECKS

Check that the power cable and socket are undamaged and that the earth installation is efficient. Carefully observe the installation instructions.

### **RECOMMENDED OPERATIONS** TO PERFORM AT THE END OF THE SEASON

- 1) Proceed with scaling procedures (see page 25).
- 2) Remove the water from the collection reservoir 5
- 3) Operate the appliance in the ventilation only mode for about half an hour in order to thoroughly dry the inside of the air conditioner.
- 4) Turn off the appliance and remove the plug from the outlet.
- 5) Remove the exhaust hose 22.
- 6) Clean the filter and dry it thoroughly before replacing it in the appliance.

# Descaling

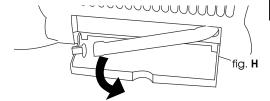
When the scale deposits become excessive (on average, after about 400 hours of operation) or in any case, at least once each season, it is very important to proceed with the decalcification of the appliance as described below.

To remove the scale from the appliance, you need:

- 20 % of descaling liquid 26
- 80 % of clean water

### Proceed as follows:

- 1) Remove the tank 6 from the appliance and drain the water remaining in the collection reservoir 4 by using the drainage hose 11 (fig. H).
- 2) Close the drainage hose 11. Pour 500 ml of decalcifying liquid and 2 litres of clean water into the collection reservoir which is found under the tank (fig. I), on the bottom of the appliance.
- 3) Operate the air conditioner for about half an hour.
- 4) After this, drain out all of the liquid remaining in the collection reservoir and rinse thoroughly. During the rinsing process, the drainage hose must be open and the appliance functioning.
- 5) Unplug the appliance from the mains and clean the collection reservoir thoroughly with a clean cloth.
- 6) After cleaning the collection reservoir, the air conditioner can be used normally.



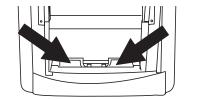


fig. I

IF TRACES OF SUDS CAN BE SEEN IN THE WATER WHEN THE MACHINE IS USED AGAIN AFTER IT HAS BEEN CLEANED AS DESCRIBED ABOVE, THIS IS NORMAL HOWEVER, IF THERE ARE A LOT OF SUDS RINSE THE APPLIANCE AGAIN THOROUGHLY TO REMOVE ALL TRACES OF CLEANING PRODUCT.

REQUEST ADDITIONAL QUANTITIES OF DECALCIFYING LIQUID FROM DE' LONGHI LTD.

### ATTENTION:

The use of products other than De' Longhi could cause damage to the internal components of the appliance and invalidate the terms of the warranty.

# Troubleshooting

If the unit is not working properly, this may be due to small problems that you can easily resolve yourself. Follow these instructions carefully before contacting your local Authorised Technical Service Centre.

| CAUSE  | REMEDY  |
|--|---|
|  | <ul> <li>plug in</li> <li>wait</li> <li>contact the Service Centre</li> <li>adjust the timer</li> </ul>   |
| The teeth of the timer are in the rest mode  | proceed with a new setting of<br>the timer  |
| three minutes have not passed since it was turned on   | wait three minutes (safety devi-<br>ce) before the appliance start<br>cooling.  |
| <ul> <li>windows open</li> <li>a heat source is operating in the room (burner, light, etc.) or there are a lot of people</li> </ul>                                  | <ul><li>close the windows</li><li>eliminate heat sources</li></ul>  |
| the air outlet hose has come detached from<br>the coupling   | fit the hose in the coupling  |
| <ul> <li>thermostat adjusted too high</li> <li>air filters clogged</li> <li>the output of the unit is insufficient for the conditions or size of the room</li> </ul> | <ul><li>lower the thermostat</li><li>clean/replace filters</li></ul>  |
|  | <ul> <li>it is not plugged in</li> <li>there is no electricity</li> <li>the safety device has switched on</li> <li>the timer pin is in the OFF position</li> </ul> The teeth of the timer are in the rest mode <ul> <li>three minutes have not passed since it was turned on</li> <li>windows open</li> <li>a heat source is operating in the room (burner, light, etc.) or there are a lot of people</li> <li>the air outlet hose has come detached from the coupling</li> <li>thermostat adjusted too high</li> <li>air filters clogged</li> <li>the output of the unit is insufficient for the con-</li> </ul> |

The appliance does not function and the problem warning light  $\stackrel{\triangle}{\mathbb{D}}$  is turned on.

- the tube is blocked
- the tube is twisted or folded
- the filter is obstructed or dirty
- remove the blockage from the tube
- position the tube correctly
- press the "manual resetable" button, which is found inside the tank housing

# Technical specification

### **TECHNICAL SPECIFICATION**

Power supply see rating plate Max. absorbed power in air conditioning Refrigerating capacity Refrigerant Number of fan speeds

Max. air flow. 370 m<sup>3</sup>/h

### RECOMMENDED OPERATING CONDITIONS

Room temperature 21 ÷ 32°C

### Dimensions:

580 mm width 785 mm height depth 435 mm

### **ELECTRICAL CONNECTION (U.K. ONLY)**

- A) If your appliance comes fitted with a plug, it will incorporate a 13 Amp fuse. If it does not fit your socket, the plug should be cut off from the mains lead, and on appropriate plug fitted, as below. warning: Very carefully dispose of the cut off plug after removing the fuse: do not insert in a 13 Amp socket elsewhere in the house as this could cause a shock hazard. With alternative plugs not incorporating a fuse, the circuit must be protected by a 15 Amp fuse. If the plug is a mouldedon type, the fuse cover must be re-fitted when changing the fuse using a 13 Amp Asta approved fuse to BS 1362. In the event of losing the fuse cover, the plug must NOT be used until a replacement fuse cover can be obtained from your nearest electrical dealer. The colour of the correct replacement fuse cover is that as marked on the base of the plug.
- B) If your appliance is not fitted with a plug, please follow the instructins provided below:

### WARNING - THIS APPLIANCE MUST BE EARTHED **IMPORTANT**

The wires in the mains lead are coloured in accordance with the following code:

> Green and yellow Earth Blue Neutral Brown Live



As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The green and yellow wire must be connected to the terminal in the plug marked with the letter E or the earth symbol or coloured green or green and yellow.

The blue wire must be connected to the terminal marked with the letter N or coloured black.

The brown wire must be connected to the terminal marked with the letter L or coloured red.