

# **AVAC I 2000**

## **Portable Air Conditioner**

### **Installation Instructions**

#### **User Guide**



### **IMPORTANT SAFEGUARDS**

**WHEN USING ANY ELECTRICAL APPLIANCE, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED.**

**PLEASE READ ALL INSTRUCTIONS CAREFULLY AND RETAIN FOR FUTURE REFERENCE**

# **ADDVENT**

## BEFORE USE



- These symbols on your device mean:
- This appliance is filled with Propane gas R290. Follow strictly the manufacturer's instruction concerning use and repairs!
- Before using the machine, read carefully the entire instruction manual.
- Do not install, operate or store the device in a room smaller than 13m<sup>2</sup>.

## GENERAL CAUTIONS

- FOR INDOOR USE ONLY.
- Do not use in cabinet, closet, boats, caravans or similar locations.
- Do not use the unit in swimming pools, washrooms or similar wet areas.
- Leave the unit to stand for 12hours before connecting to the mains supply after transport or when it has been tilted (ex. during cleaning).
- Only use the unit in the upright position on a flat level surface (even during transport!) and at least 50cm from any objects.
- Do not use the unit in a potentially explosive environment containing combustible liquids, gases or dusts.
- Do not use the appliance in the vicinity of flammable or explosive substances or fuels. Never use any paint, cleaning sprays, anti-insect sprays or similar near the unit; this could deform the plastic or cause electrical damage.
- Ensure that there is at least 50cm between the sides of the appliance and any flammable, heating materials.
- Do not place objects on the unit or restrict air inlet/outlet.
- The unit should not be used in an area where it could be splashed with

water:

- Closely supervise any children and pets when the unit is in use.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- CHILDREN SHALL NOT PLAY WITH THE APPLIANCE.
- Cleaning and user maintenance should not be carried out by children.
- Switch off and unplug the unit when not in use.
- Never leave a functioning device unsupervised.
- Do not pull the unit along by the cord.
- Avoid over-twisting, -coiling, -pulling the power cord, never use nylon or iron wire to tie/tidy the power cord.
- Make sure that the plug and socket remain visible and accessible at all the time.
- Do not use extension cords.
- Never reach to retrieve the unit if it has fallen in water. In such case, immediately pull the plug. Have the unit checked before using it again.
- IF THE SUPPLY CORD IS DAMAGED, IT MUST BE REPLACED BY AN ELECTRICIAN OR SIMILARLY QUALIFIED PERSON, TO AVOID HAZARD.
- THE MAINS SUPPLY MUST CONFORM TO THE SPECIFICATION SHOWN ON THE RATING PLATE AT THE BACK OF THE UNIT.
- The appliance shall be installed in accordance with national wiring regulations.
- Do not exceed the recommended room size for max. efficiency. (26m<sup>2</sup> floor area, 2.4m ceiling)
- Close the doors and windows.
- Keep curtains or blinds closed during the sunniest hours of the day.
- Keep filters clean.
- Once room has reached the desired conditions, reduce the setting for temperature and ventilation.
- Do not turn on the appliance if you have discovered damage to the appliance, cord or plug, if the appliance is malfunctioning or if there are signs of any other defect.

- THE MACHINE IS TO BE USED ONLY FOR ITS PRESCRIBED PURPOSE. ANY OTHER USE IS DEEMED TO BE A CASE OF MISUSE. THE USER/ OPERATOR, NOT THE MANUFACTURER WILL BE LIABLE FOR ANY DAMAGE OR INJURIES OF ANY KIND CAUSED AS A RESULT OF THIS.

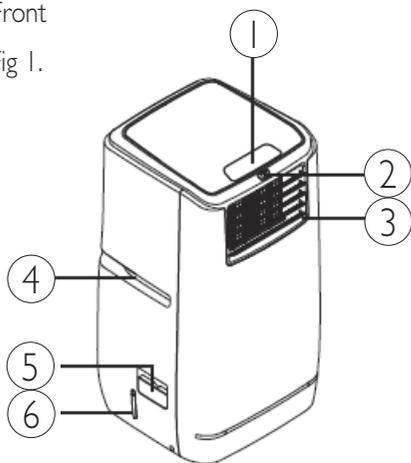
### **SAFETY RELATING TO REFRIGERANT R290:**

- Read these warnings carefully.
- This appliance contains the refrigerant R290. R290 is a refrigerant that complies with the relevant European Directives. Never perforate the refrigerant circuit. R290 is flammable (GWP3)!
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not pierce or burn any of the components of the cooling circuit of the unit. Do not set light to the unit.
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- Appliance should be installed, operated and stored in a room with a floor area larger than 13m<sup>2</sup>.
- Be aware that the refrigerants may not contain an odour, which means you cannot smell leaks..
- Compliance with national gas regulations shall be observed.
- Keep ventilation openings clear of obstruction.
- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- Under no circumstances should any person open, remove the cover, or try to modify or repair this unit in any way.

## Components

Front

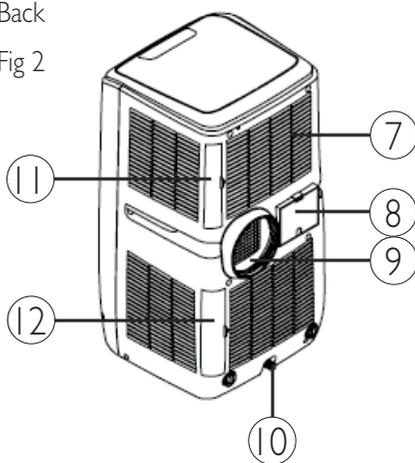
Fig 1.



1. Control Panel
2. Remote control receiver
3. Air vent
4. Carrying handle
5. Water gate (for energy saving)
6. See-through window for water level inside the unit

Back

Fig 2

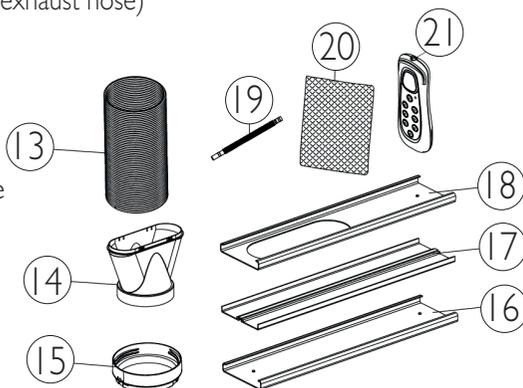


7. Air filter (air inlet)
8. Cord compartment
9. Exhaust air outlet
10. Drainage knob / drainage point
11. Air filter (air inlet)
12. Air filter (air inlet)

### Accessories

13. Exhaust hose
14. Flat Type adaptor - Inserting over hose and into window spacer
15. Inward Adaptor (connecting unit & exhaust hose)
16. PVC strip - for filling the open window space
17. PVC strip - for filling the open window space
18. PVC strip (with hole) - for filling the open window space and with hole for connection to flat type adaptor
19. Drain tube for continuous drainage
20. Active carbon filter
21. Remote control

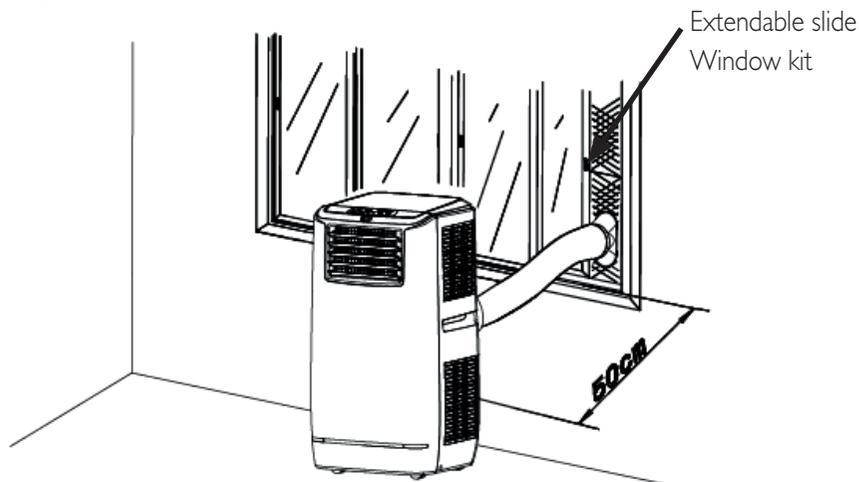
Fig 3



## Installation

The unit is a portable air conditioner that may be moved from room to room. Using the extendable slide

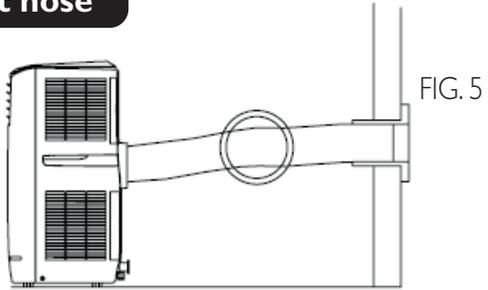
Fig 4.



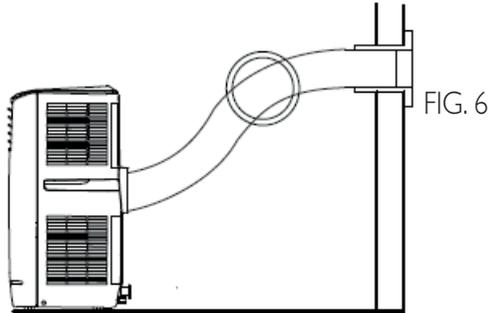
- Offer window spacer to the window gap and adjust the length as you need.
- Feed exhaust hose through the window spacer and slide window across so that spacer is held securely. This technique may also be used for sash windows. Note: Take care to maintain protection against intruders

## Mounting of the exhaust hose

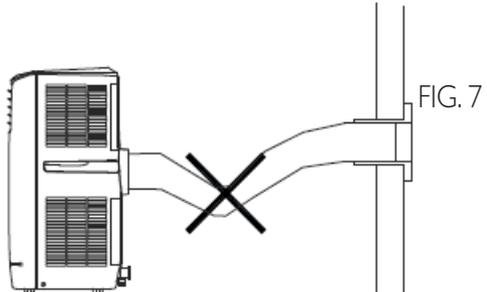
- Use only the hose provided and clip exhaust hose and unit adaptor to the back of the air conditioner.



- Avoid kinks and bends in the exhaust hose as this will cause expelled moist air to build up causing the unit to overheat and shut down.

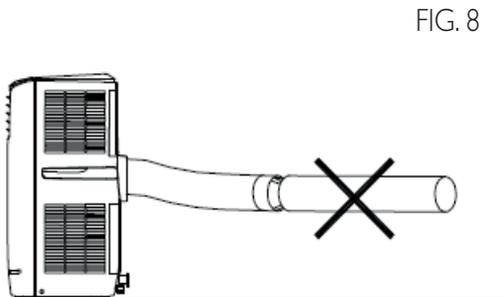


- The hose may be extended from 300mm to 1500mm but for maximum efficiency use the shortest length possible.



### **WARNING!**

The length of the exhaust pipe is specially designed according to the specification of this product. Do not replace or prolong it with your own private hose as this could cause the unit to malfunction.



## Installation of the carbon filter

This machine is equipped with the active carbon filter. The activated carbon is charcoal that has been treated with oxygen to open up millions of tiny pores between the carbon atoms. It is used to get rid of unwanted odours (smoke, fumes, and animal odour). Please note, the carbon filter is not washable, its life span is variable and depends on the ambient conditions where the unit is used. The filter should be checked periodically and replaced if necessary (normally, it's 6 months), below is the installation of the active carbon filter along with this unit:

FIG. 9

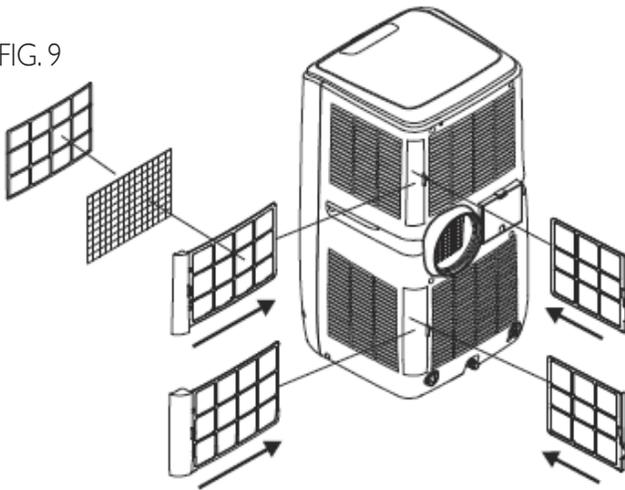
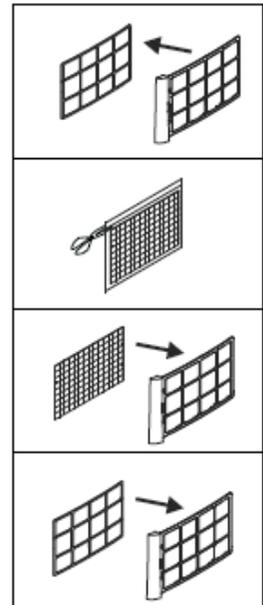


FIG. 10



1. Remove the filter frame from the unit.
2. Separate the filter fixer from the filter frame.
3. Remove the active carbon filter from its plastic bag.
4. Insert the active carbon filter into the filter frame.
5. Fix the filter by reassembling the fixer onto the filter frame.
6. Re-fit the filter frame inside the unit.

# Operation

## Control panel

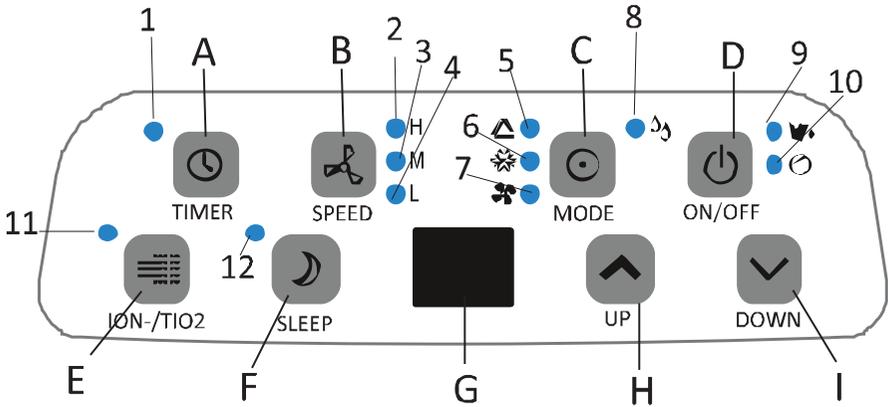


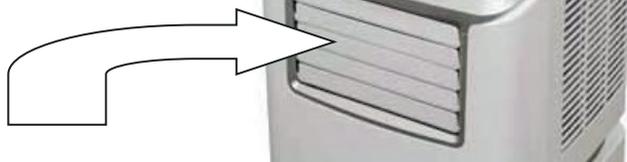
FIG. 11

- |  |   |
|--|---|
| A. TIMER button  | 1. Timer indicator  |
| B. SPEED (ventilation) button  | 2. High fan speed indicator   |
| C. MODE button   | 3. Medium fan speed indicator   |
| D. ON/OFF (POWER) button   | 4. Low fan speed indicator  |
| E. IONIZER / TiO2 button (only for the model with ionizer/TiO2 function) | 5. AUTO mode indicator  |
| F. SLEEP button  | 6. COOL mode indicator  |
| G. DISPLAY window  | 7. FAN mode indicator   |
| H. TEMPERATURE UP button   | 8. DEHUMIDIFY (DRY) mode indicator  |
| I. TEMPERATURE DOWN button   | 9. Water full indicator   |
|  | 10. Compressor operation indicator  |
|  | 11. Ionizer/TiO2 mode indicator (only for the model with ionizer/TiO2 function) |
|  | 12. Sleep mode indicator  |

## Adjust the air vent

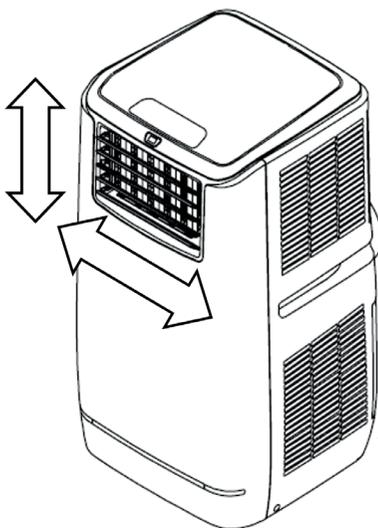
Before using the unit, please do open the horizontal louver!

FIG. 12



Adjust the louvers to your desired direction

FIG. 12



## Turning ON/OFF

Press ON/OFF button, the unit will start in AUTO (automatic) mode.

### Automatic mode

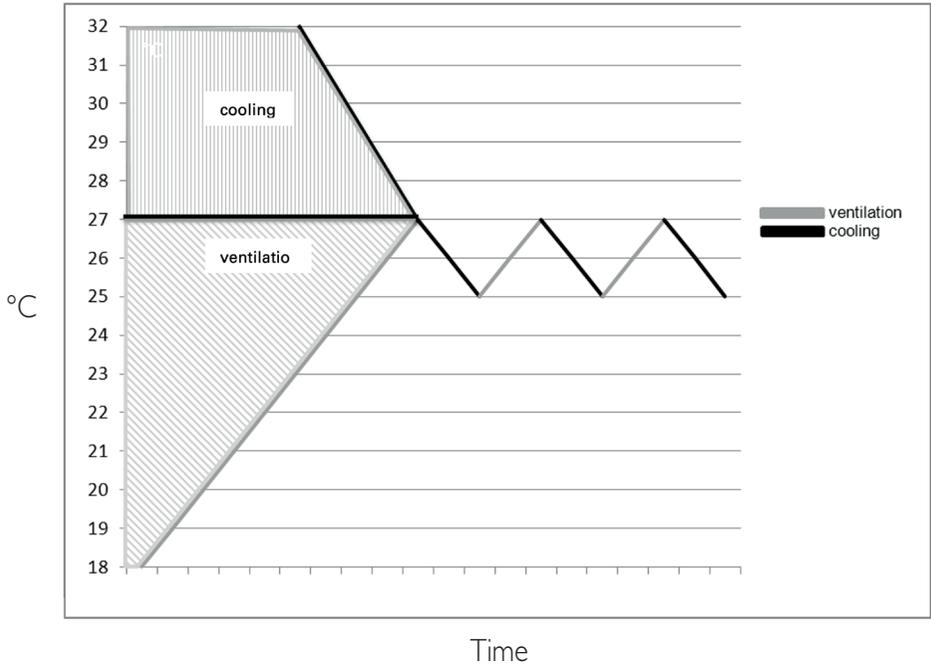
In automatic mode, the unit can cool , ventilate or heat depending on ambient temperature and setpoint adjustment. The unit is preset as follows:

- 1. If ambient temperature is  $> 23^{\circ}\text{C}$ ,** the unit will be in automatic cooling mode. Default setting  $24^{\circ}\text{C}$ . During this operation, the indicator for AUTO and COOL mode light up in green:
- 2. If the ambient temperature is  $< 24^{\circ}\text{C}$ , but  $> 20^{\circ}\text{C}$ ,** the unit will work in ventilation mode. During this operation, the indicator for AUTO and FAN mode light up in green:

## Setpoint setting in automatic cooling mode 18-32°C

If you set the setpoint at 24°C the unit starts to cool at 27°C (Setpoint + 3°C). It cools down to 25°C (Setpoint + 1°C) and then switches back to the ventilation.

FIG 14



### Setting mode/function

Press MODE button to select required working mode: cooling, fan or dehumidify (dry) Sign of your selected mode comes on.

### Setting temperature

1. Press 'Temperature up' or 'Temperature down' button to regulate the temperature you desired.
2. The display window will show the temperature you set as you press 'Temperature up' or 'Temperature down' button. Otherwise, it will always show the ambient temperature.
3. The pre-setting temperature of this machine is: 24°C for cooling.

## Setting ventilation speed

Press SPEED button to choose the ventilation speed you need, high, medium or low. The sign of high or low ventilation will light on at the same time.

Setting timer

1. Press TIMER button to set the operating hours you desired (1 to 24 hours, the sign of timer will light on). When the set time has been reached, the machine will turn off automatically. The display window will show the hour(s) you set as you press TIMER button. If the timer button is not pressed, the unit will work continuously.
2. By pressing the timer but without turning on the other functions, you can PRE-SET the time for the machine to work. For example, if you press the timer to '2', the unit will work automatically after 2 hours.

## Sleep function

1. In cooling mode, by pressing the SLEEP button, the set temperature will increase 1°C at the 1st hour; another 1°C at the second hour; then keeps at that temperature.
2. In sleep mode, the ventilation will keep at low speed. Re-press the SLEEP button, the setting temperature and ventilation speed will return to the pre-selected one.
3. The unit will shut down automatically after the SLEEP function running for 12 hours.
4. ***Please note, the sleep function is not available while the machine is working in ventilation, dehumidification or auto mode. Only available in Cooling or Heating mode.***
5. ***When the machine is in Sleep function, the Fan Speed would turn to be LOW speed.***

## Dehumidify (DRY) mode

In dehumidify (DRY) mode, the temperature cannot be adjusted, the ventilation will fix at low speed. When the unit is operating in Dehumidify (DRY) mode, humidity extracted from the air is collected in an internal tank. If the tank reaches full, the compressor and motor cut out automatically. At the same time, the "Water Full" indicator comes on. An alarm will also sound. When the tank is full, drain the water as shown in the page about "DRAINAGE". You may also use the unit without having to empty the tank so often by using "continuous drainage", please also refer to the page about "DRAINAGE".

## Self-diagnosis

This machine is equipped with self-diagnosis function. If something is wrong in the machine, the LED will show the word “E1” or “E2”.

At this time, please contact Addvent (01 17 938 6402). Please DO NOT dismantle the machine by yourselves in any case.

All the above functions can also be performed with the supplied remote control.

This remote control requires 2 pcs AAA batteries to operate (battery is not supplied along with the unit).



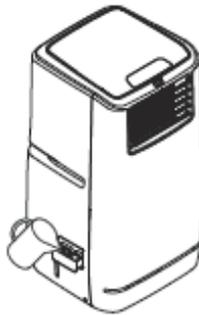
FIG 15

## Efficiency Boosting

This unit is equipped with “energy efficiency boosting” function, by adding water (2.5L max.) to the water gate at the side of the unit, the energy efficiency can be elevated. The principle is: while the machine is working, the condenser will be getting hot, if you add the water into the unit after the unit has been worked for more than one hour, the water will cool down the condenser, thus it consumes less power, i.e. saving energy.



1. Open the water gate



2. Fill the water (max. 2.5L) please pay attention on the water level of the see-through window beneath the water gate.



3. Refit the water gate into place

FIG 16

## **NOTE**

1. This efficiency feature by adding water is proposed to do after one hour operation and the water should **NOT** be over 2.5L, otherwise, the “water full” indicator will light in red and the unit will stop working. ☆ This action should only be performed while the power is on, in order the “water full” alarm could work, also please pay attention on the water level of the see-through window beneath the water gate.
2. In case the “water full” indicator is in red, please drain the water from the drain point at the back side of the unit until the red light goes out. The unit should work again now.

## **IMPORTANT!**

1. To prolong the compressor's life, after switch-off of the unit, please wait for 3 minutes (at least) before re-switch.
2. The cooling system will switch off if the ambient temperature is lower than the set one. The ventilation, however, keeps working on the set level. If the ambient temperature rises above the selected level, the cooling will return to work.
3. This machine is equipped with ANTI-FROST function. While using the heating function during low temperature, sometimes the heating will stop for a while in order to melt the frost. As this occurs, just wait for the heating returns to work.

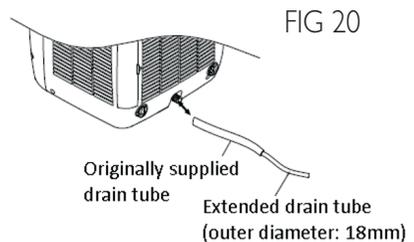
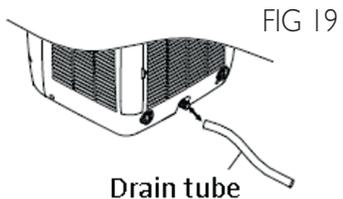
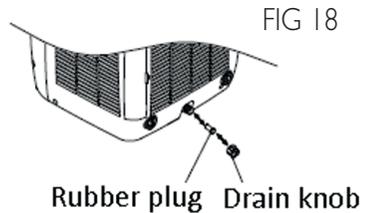
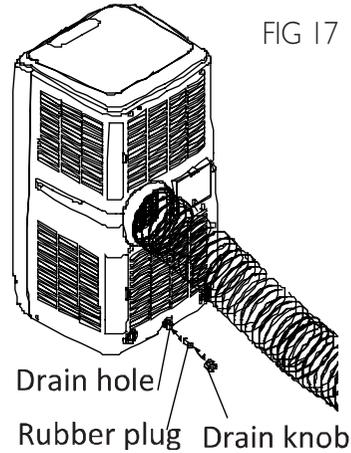
## Drainage

When the unit is operating in Cooling or Dehumidify ( DRY) mode, humidity extracted from the air is collected in an internal tank. If the tank reaches full, the compressor and motor cut out automatically. At the same time, the “Water Full” indicator comes on. An alarm will also sound. When the tank is full, carry out the following instructions:

1. Turn off the air conditioner and avoid moving it when full.
2. Position a container (a water tray for example) underneath the drain hole.
3. Remove the drain knob & rubber plug from the drain hole and allow the water to drain out.
4. When the container is almost full, replace the rubber plug in the drain hole and tighten the drain knob firmly.
5. Repeat until the unit is emptied.
6. Replace the rubber plug and tighten the drain knob firmly.
7. Switch on the unit - the full water or compressor operating indicator should not be flashing.

Should you prefer to use the appliance without having to empty the tank every so often, proceed as follows :

- Remove the drain knob and rubber plug and retain for future use.
- Connect the drain tube supplied to the water outlet as shown and locate the other end into a drain.
- The drain tube may be extended by adding an extension tube and using a suitable connector:



**Please note**

1. The drain must be at a lower level than the drain hole on the unit.
2. Flashing 'Water Full' indicator will not function in this mode of drainage.
3. If you want to extend the water tube, you can connect it with another tube (OD: 18mm). \*The extended tube is NOT supplied along with the unit.

## Maintenance

**Always unplug the air conditioner from the mains before cleaning. To maximize the efficiency of the air conditioner, clean the unit regularly.**

### Cleaning the housing

Use a soft, damp cloth to wipe the body clean.

Never use aggressive chemicals, gasoline, detergents, chemically treated cloths, or other cleansing solutions. These all could possibly hurt the cabinet.

### Cleaning the filter

Use a vacuum cleaner or tap the filter lightly to remove loose dust and dirt from the filters and then rinse thoroughly under running water (no hotter than 40°C).

Dry thoroughly before replacing.

Notice! Never operate the unit without the filters.

### End of season storage

- Drain any water in the unit before completely operating the unit on ventilation only mode for a few hours, to thoroughly dry the inside.
- Clean or change the filter
- Unplug and store the power cord as shown
- Replace in the original carton or cover for storage.

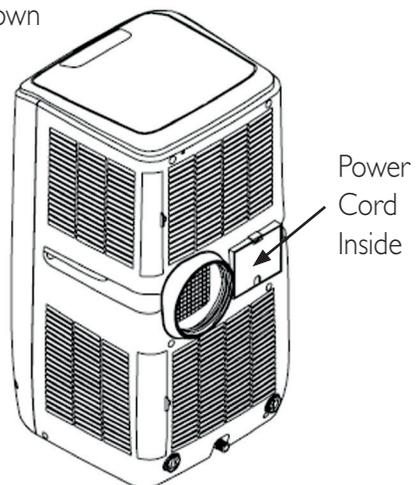


FIG. 21

## Fault Check List

The air conditioner does not run

- Is the air conditioner plugged in?
- Is there a power failure?
- Is the 'full water' indicator flashing?
- Is the room temperature below the set temperature?

The machine seems to do little

- Is there direct sunshine? (Please put down the curtain.)
- Are too many windows or doors open?
- Are there too many people in the room?
- Is there something in the room producing lots of heat?
- Is the room too large?  
Maximum recommended Room Size = 26m<sup>2</sup>  
Standard 2.4m ceiling.

The machine seems to do nothing.

- Is the filter dusty, contaminated?
- Is the air intake or output blocked up?
- Is the room temperature below your selected temperature?

Too noisy

- Is the machine positioned unevenly so as to create vibration ?
- Is the floor underneath the machine uneven?

The compressor doesn't run.

- If so, it is possible the overheat protection of the compressor is on. Just wait for the temperature to drop.

## Specification

Model no.	AVAC12000
Power supply	230V/50Hz
Cooling capacity	12000BTU/3.4kW
Power/Ampere consumption	1300W/5.8A
Dehumidify capacity	31L/day
Air Volume (max. speed)	510m <sup>3</sup> /hr
Refrigerant	R290/270g
Fan speed	3
Timer	1~24 hours
Working temperature	18°C- 32°C
Exhaust hose	Ø 150 × 1500mm
N.W.	30kg
Product size (W x D x H)	415mm x 418mm x 790mm

### REMARK:

Measuring condition for above is as per EN 14511: Cooling – DB= 35°C, WB= 24°C  
DB = temperature of dry bulb = room temperature

WB = temperature of wet bulb = relative humidity.

Test condition for data in our rating label is as per safety regulation: EN60335-2-40

Current & Fuse : F10AL250V or T10AL250V



*Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.*

**ADDVENT**

Telephone: **0117 938 6402**

Unit 12, Access 18, Bristol BS11 8HT

[www.addvent.co.uk](http://www.addvent.co.uk)