

# RHINO<sup>TM</sup>

## Local Air Conditioner

Thank you for selecting this air-conditioner. Please keep this User's Manual for future reference. Read the User's Manual carefully before operating this unit.

### IMPORTANT SAFEGUARDS

- This air-conditioner is suitable for indoor use only.
- Rated operating range: this unit shall be connected to 220-240V / 50Hz power supply.
- Ensure this is used on a flat surface at least 50cm away from surrounding objects or walls.
- Once the air-conditioner is installed, ensure that the mains cable is in good condition and inserted firmly into the power socket and always ensure that the power cord is arranged in such a way to avoid tripping or the plug from being pulled out.
- Do not insert any object into the air inlet/outlet of the air-conditioner. Be sure to keep the air inlet/outlet of the air-conditioner unblocked.
- Where there is the need to install a drain pipe, ensure that the connection of the drain pipe is secure without kinks.
- When adjusting the horizontal/vertical louver at the air outlet, turn it slightly by hand to avoid damage of the Louvre.
- Keep the unit in an upright position when moving or repositioning.
- Keep this unit away from petrol, flammable gases, or other heat sources.
- Do not dismantle, inspect or modify the unit without authorisation as this may impair the unit, cause personal injuries or property damage; to avoid dangers, if the unit is faulty, be sure to have it repaired by the manufacturer or a suitable qualified person.
- Do not operate this air-conditioner in a bathroom or other wet environments.
- Do not allow children to play with this machine. Closely supervise children when this unit is in use.
- Do not turn off this unit by removing the plug.
- Do not place liquids on the unit.
- Do not use pest control aerosol or other flammable substances near the air-conditioner.
- Do not wipe or wash the air-conditioner with chemical solvents such as petroleum, aerosol or alcohols, etc. Before cleaning the air-conditioner, be sure to turn off the power supply and wipe it with a soft damp cloth; if the machine is very dirty, wipe it with a neutral cleaner.

### RECOMMENDATION

Do not operate this unit if the ambient temperature is greater than 35°C in the cooling mode or lower than 5°C in the heating mode.

## FUNCTION DESCRIPTION

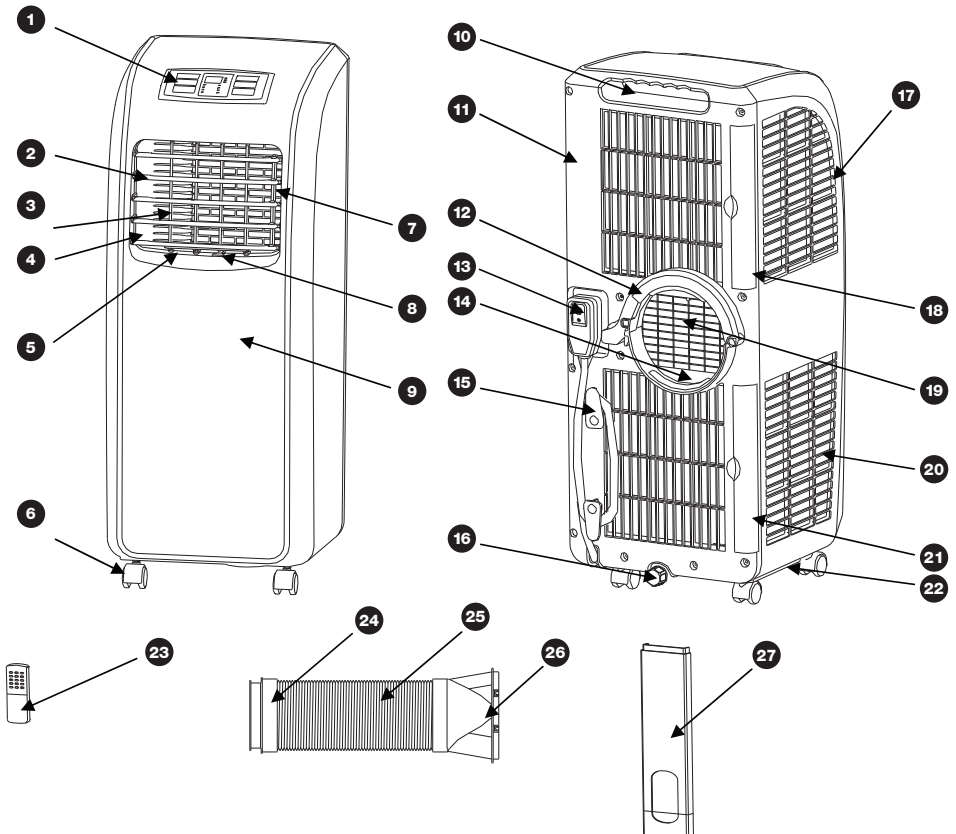
The mobile air-conditioner has the following functions available cooling, dry, air blowing and sleep functions. The speed of the fan is adjustable between high fan speed and low fan speed, and various functions such as (24h) timed ON/OFF setting.

## FEATURES AND PARTS

### 1. Features

- Compact style design.
- The remote control features user-friendly memory design. A convenient storage pocket is located on the right of the handle at the back of the unit.
- The rear of the unit includes a universal plug holder for convenient and safe storage of the cable and plug.
- The position of the duct connector is high to allow for convenient assembly and smooth air flow.
- Timed start/shutdown function, unique start/shutdown music.
- 3-minute delay compressor restart protection function.
- The snap-fit design of the exhaust hose allows for more convenient installation of the unit.

### 2. Parts:



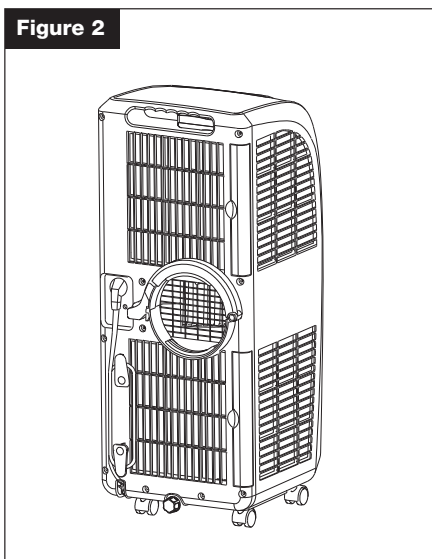
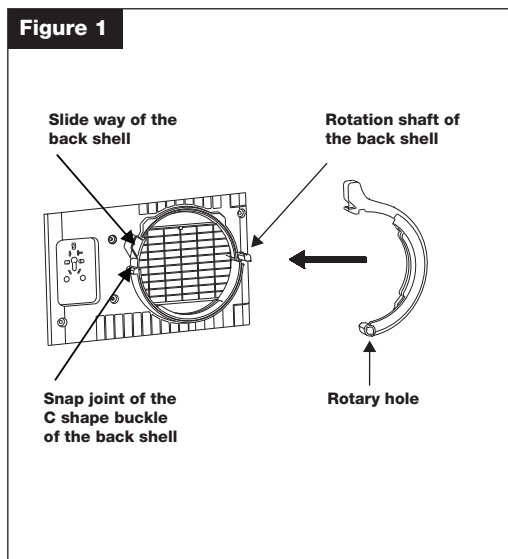
- |   |                                       |
|---|---------------------------------------|
| 1. Control panel  | 14. Lower air duct                    |
| 2. Horizontal louvre  | 15. Cable winding post                |
| 3. Vertical louvre  | 16. Drain cap                         |
| 4. Air outlet frame   | 17. Evaporator filter mesh            |
| 5. Vertical Louvre connecting lever                           | 18. Evaporator filter frame           |
| 6. Caster   | 19. Radiating fine mesh               |
| 7. Horizontal louvre connecting lever                         | 20. Condenser filter mesh             |
| 8. Main vertical louvre                                       | 21. Condenser filter frame            |
| 9. Front shell  | 22. Base plate                        |
| 10. Handle position (right side: remote control storage area) | 23. Remote control                    |
| 11. Back shell  | 24. circular connector                |
| 12. C shape buckle for the heat exhaust hose snap             | 25. Heat exhaust hose                 |
| 13. Power cord  | 26. Heat exhaust hose short connector |
|   | 27. Window sealing board assembly     |

## INSTALLATION ADJUSTMENT

### 1. Installation

**WARNING:** leave this mobile air-conditioner in an upright position for at least 2 hours before first use. Ensure the air-conditioner in an upright position whilst moving . The air-conditioner should be placed on a flat surface. Do not install or operate this air-conditioner in a bathroom or other wet environments.

a) Installation of the exhaust clip to the rear of the unit. (figure 1)



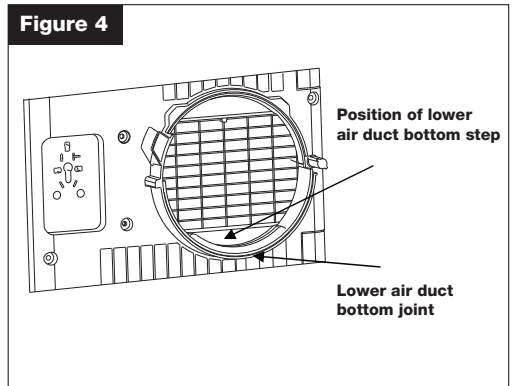
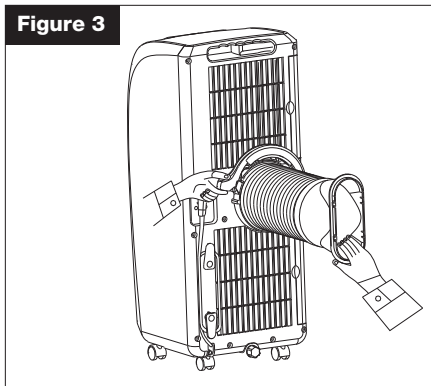
**b)** Rotate the exhaust clip counter-clockwise until the clip locks firmly into position as shown below (as shown in Figure 2).

**Note** Do not rotate exhaust clip if not correctly aligned as this may damage the interlocking components.

**c) Installation of the exhaust hose assembly to the unit**

Pull the end of the exhaust hose apart to allow easy access to the exhaust connector ; Hold the exhaust clip clear of the duct opener. Align the exhaust connector to the opening on the rear of the unit. Push the exhaust clip down to lock the hose in position(as shown in Figure 3).

**Note** The end of the exhaust hose must be secured on the bottom stop of the outlet. (as shown in Figure 4).



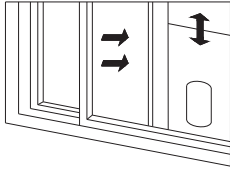
Hold the unit with one hand and the heat exhaust hose short connector with other hand; or get help and one person hold the unit and the other person pulls the heat exhaust hose gently.

**Note** Do not separate the heat exhaust hose assembly from the unit. Do not tilt the unit when pulling apart the heat exhaust hose.

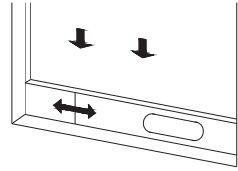
**d) Installation of the window sealing board assembly**

Half open the window and mount the window sealing board assembly onto the window, either vertically or horizontally (as shown in Figure 5 and 6). Pull apart the parts of the window sealing board assembly, adjust the distance of the window sealing board assembly pulled apart so that the two ends of the assembly come into contact with the window frame, and fasten the parts of the assembly with copper screws.

**Figure 5**



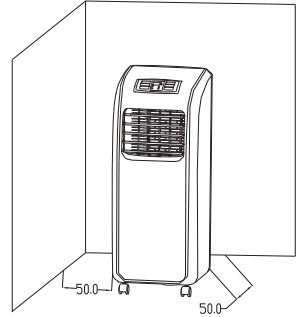
**Figure 6**



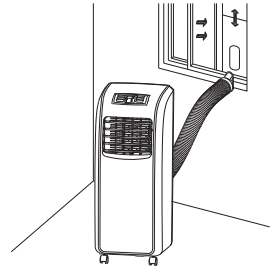
Open the ducting hose and position the outlet of the hose into a well ventilated area. The exhaust hose may not be bent and shall be free from significant kinks (greater than 45°).

**Note** The exhaust hose is 280mm-1000mm long. Do not extend the hose or replace with other different hoses as this may affect the functions of the air-conditioner. The exhaust must be kink and blockage free, note the air-conditioner may overheat if the exhaust is obstructed.

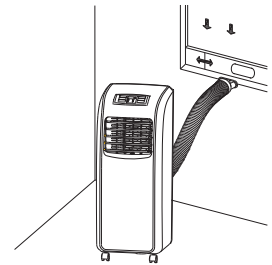
**Figure 7**



**Figure 8**



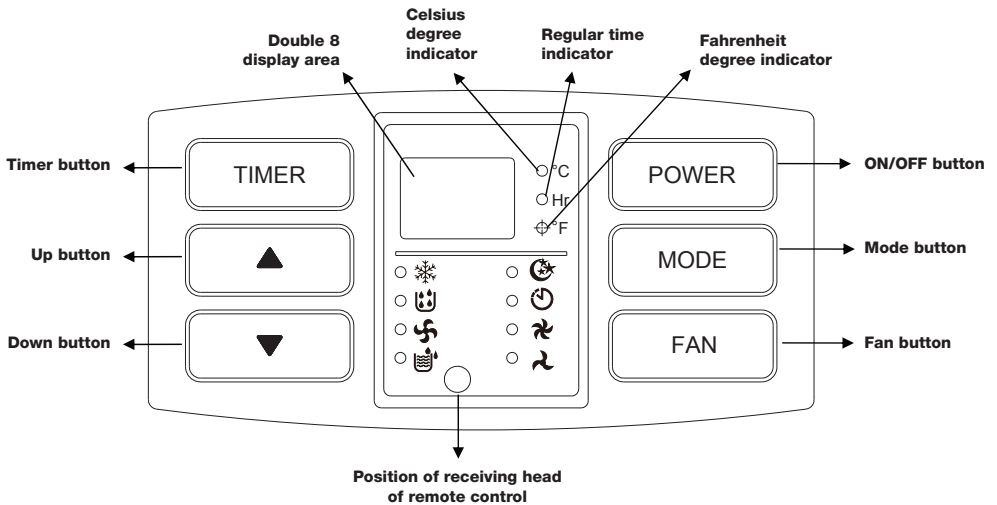
**Figure 9**



## CONTROL SETTING

One. Operation instructions of the control panel

1. Select the operation mode depending on the model and functions. The operation mode is as follows:



## FUNCTIONS SETTING

This portable air conditioner has three functions: cooling, dehumidifying and fan.

Fan has two speeds: high speed and low speed, setting temperature is 17--30°C (62~86°F), 24 hours timer, sensor and water-level protective function.

Buttons: There are six keys on the control panel: Power, Mode, Fan Speed, Timer, Up key and Down key.

- POWER Key:** Press the key to start the unit, and press this key again to turn unit off.
- Mode Key:** Set the Cooling, Dehumidifying and Fan Mode when unit is working or Timer-On Situation.
- Fan Speed:** Press the button to scroll between the speed settings, but not available in dehumidifying mode.
- Timer Key:** Set the Timer-Off function, when setting the time, the regular time indicator will illuminate; adjust the time while the regular time indicator is illuminated; the room temperature will display in the Off mode. The Timer-On function can be set as above. Once set the timer indicator will illuminate. Timer-Off or the Timer-On, the Timer indicator lights.
- Up\Down Key:** Press this two key to set the desired room temperature. (Press the Up key once, the temperature will increase by 1°C or 1°F, also press the down key to decrease by 1°C or 1°F), these buttons are also used to set the time in the time function; can also switch from °C to °F display by pressing these two keys at the same time.

\* the user wants to display the temperature in °C, you can use the button on the remote control or press the up and down key simultaneously.

## 2. Operation instructions:

a) In the Cooling models:

$T_a \geq T_s + 1^\circ\text{C}$  ( $1^\circ\text{F}$ ), the cooling starting.

$T_a \leq T_s - 1^\circ\text{C}$  ( $1^\circ\text{F}$ ), the compressor stops and only the fan motor remains working at the set fan speed.

$T_a$ : Room Surrounding Temperature

$T_s$ : Setting Temperature

Sleep mode, pressing Timer and Down button can set the sleep function. In sleep function, after operating two hours, the set temperature increases  $1^\circ\text{C}$  ( $1^\circ\text{F}$ ) automatically. After operating for another 2 hours, the set temperature will increase  $1^\circ\text{C}$  ( $1^\circ\text{F}$ ) again. Then, the set temperature will not change and the fan is forced to switch to low level.

b) In the dry mode, if the ambient temperature  $\geq 17^\circ\text{C}$  ( $62^\circ\text{F}$ ), the compressor will start. Then, the unit is controlled in the following manner: when the ambient temperature  $\leq 15^\circ\text{C}$  ( $59^\circ\text{F}$ ), the compressor shuts down. When the ambient temperature rises to be  $\geq 17^\circ\text{C}$  ( $62^\circ\text{F}$ ), the compressor starts again. The start/stop of the compressor meets the requirement for 3-minute protection time.

## 3. Timer setting

a) Press the Timer button to enter timed shutdown. The timer indicator will illuminate.

b) Press the Timer button to enter the timing function (timed start/timed shutdown). Adjust the time using the up or down button to set the time. The time will cycle in the order of 1 - 2 - 3 - ..... - 24 - 0 - 1 hours or 24 - 23 - 22 - ..... - 1 - 0 - 24 hours. The adjustment time of the timing function is relative time.

c) After timed start is set and start time is reached, the unit will start. The timer display indicator will be replaced by the ambient temperature.

d) After timed shutdown is set, once the timed shutdown time is reached, the unit will shut down. Once set the timer indicator will extinguish and the ambient temperature is displayed.

e) Only the last setting of the timing function is valid and valid once only.

f) ON/OFF operations caused by the button or remote control will clear all timing settings.

g) Once the timing is determined, if the timer button is pressed once, it is possible to query the remaining timed start/shutdown time. If the timer button is pressed twice continuously within 5s, it is possible to cancel timing.

## 4. Operation instructions of the remote control

The operation instructions of the buttons of this simple remote control are as follows:

a) Power button: press this button to turn on/off the unit;

b) Timer button: upon shutdown, press this button to set timed start; upon start, press this button to set timed shutdown.

c) High button: press this button to allow the unit to operate in the high fan speed state(except in the dry and sleep modes);

d) Low button: press this button to allow this unit to operate in the low fan speed state;

e) Up button: press this button to increase the temperature and timing value;

f) Down button: press this button to decrease the temperature and timing value;

g)  $^\circ\text{C}$  -  $^\circ\text{F}$  button: press this button to switch between the degree Celsius and degree Fahrenheit;

h) Cool button: press this button to set this unit to operate in the cooling mode;

i) Fan button: press this button to set this unit to operate in the air supply mode;

j) Dry button: press this button to set this unit to operate in the dehumidifying mode;

k) Sleep mode: press this button to set this unit to operate in the sleep mode.

## 5. Multiple protection functions:

### a) Anti-freeze protection function:

Upon cooling, when the compressors operates continuously for more than 10 minutes, if the pipe temperature  $T_p$  is less than or equal to  $2^{\circ}\text{C}$  continuously for 20 seconds, the compressor will turn off, LED displays E4, the unit initiates the anti-frost protection function and the buttons are inactive (except the OFF button). Once the pipe temperature rises to exceed or equal  $8^{\circ}\text{C}$ , 3 minutes the unit will return to normal operation after 3 minutes.

### b) Full water protection function:

When the water in the water tray exceeds the alarm level, the unit will alarm automatically and the full water indicator illuminates. Drain the water from the unit to prevent shutdown. (For more information about the drain method, refer to the "Drain").

### c) Delay protection function of the compressor

This unit offers restart protection for the compressor. Except that the compressor may start immediately when the unit is energized for the first time, there is 3-minute delay start protection after the compressor is shut down.

## REMOTE CONTROL

Buttons of the remote control operating instructions as below:

1) High Press this button to select high fan speed (except dehumidifying mode and sleep mode)

2) Low Press this button to select low fan speed.

3) Sleep Press this button to select sleep mode

4) Timer When turn off the unit, press this button to set the time of turn on; when turn on the unit, press this button to set the time of turn off

5) Up Press Up or Down button to set temperature or adjust the time in Timer mode.

6) Down Press Up or Down button to set temperature or adjust the time in Timer mode.

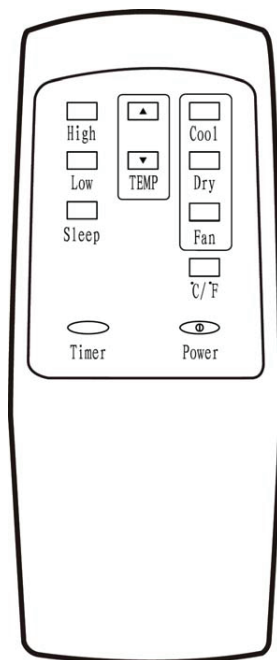
7) Cool Press this button to choose Cool mode.

8) Dry Press this button to choose Dry mode

9) Fan Press this button to choose Fan mode.

10) Press this button to change between Celsius to Fahrenheit.

11) Power Press this button to turn the unit on/off.





## WATER DRAINAGE

### 1. Manual drain: (as shown in Figure 10)

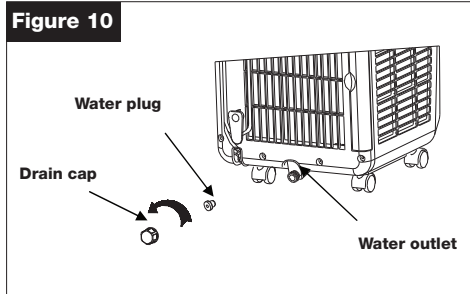
a) Once the unit shuts down upon full water, turn off the power of the unit and then unplug the power plug.

Note: move the unit carefully to avoid spillage of water in the water tray at the bottom of the unit.

b) Position a collection vessel below the water outlet at the back of the unit.

c) Screw off the drain cap, unplug the water plug and water will flow into the vessel that holds water automatically.

**Note** Do not misplace the water plug and drain cap. Tilt the unit slightly backward when draining. Once the water is fully drained, insert the water plug and screw on the water cap tightly. Turn on the unit only after the water plug and drain cap are installed.



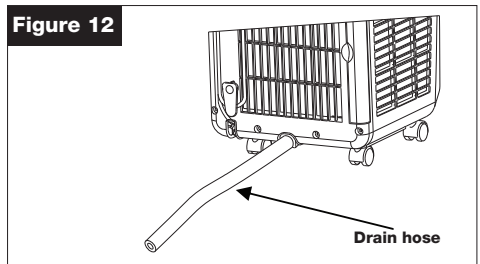
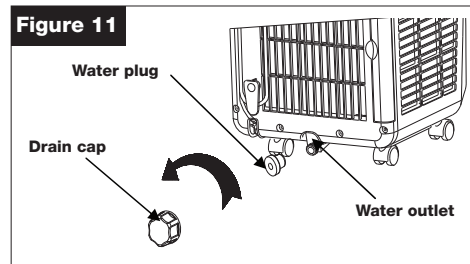
### 2. Continuous drain:

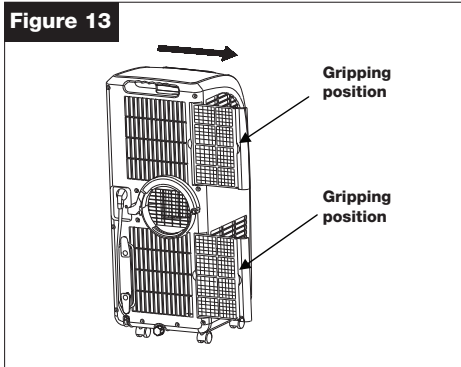
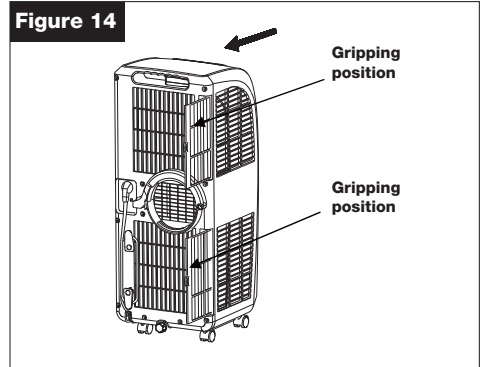
a) Screw off the water cap in the direction shown by the arrow and unplug the water plug; (Figure 11)

b) Insert a OD 13mm PVC drain hose 8mm-10mm into the water outlet; (Figure 12)

c) Connect the drain hose to a water drain.

**Note** Place the drain hose in a place at a height below the water outlet and keep the drain hose free from kinks. When continuous drain is used, store the drain cap and water plug safely.



**Figure 13****Figure 14**

## MAINTENANCE AND SERVICING

1) Prior to maintenance and servicing of the unit, turn off the power and unplug the plug.

### a) Surface cleaning

Clean the surface of the unit with a clean damp soft cloth. Do not use chemical solvents such as alcohol and petrol; as they may damage the air-conditioner

### b) Cleaning of the filter frame and filter mesh

Clean the filter mesh every two weeks. If the filter frame and filter mesh are clogged with dust or debris the function of the air-conditioner may be impaired.

## 2) Cleaning of the filter frame and filter mesh

a) Hold the filters removal tabs and remove by gently pulling in the direction shown by the arrow (as shown in Figure 13 and 14.).

Note: When taking out the filter frame or filter mesh, the force shall be applied evenly to avoid twisting or damage of the filter frame or filter mesh. Be sure to take out the filter frame first and then take out the filter mesh.

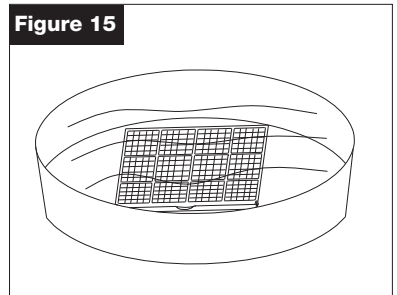
b) Clean the filters in warm water (about 40°C) add a neutral cleaner and then dry (as shown in Figure 15).

## 3) Installation of the filter frame and filter mesh

**Note** Install the filter mesh first and then install the filter frame. To install the evaporator filter mesh and condenser filter mesh, point the back end of the filter mesh toward the opening and then push the filter mesh evenly and gently into position.

### **Note**

- To remove do the above in reverse.
- The filter mesh must be installed into place; otherwise, the filter frame may not be installed correctly.
- Install the filter mesh gently so as not to damage it.

**Figure 15**

## HANDLING OF THE UNIT

### Handling and moving of the unit

To handle or move the unit, hold the top of the air outlet of the front shell with one hand and the handle position at the top of the back shell with another hand, ensure the unit remains in the upright position. (As shown in Figure 17).

#### Note

- a) Do not handle the unit using the horizontal louvre.
- b) Keep upright when moving.
- c) Drain before moving.

Figure 16

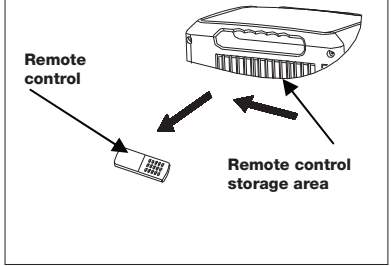
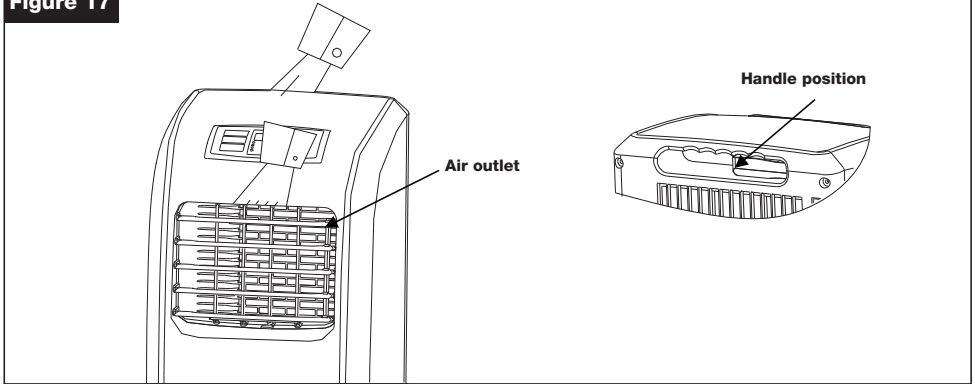


Figure 17



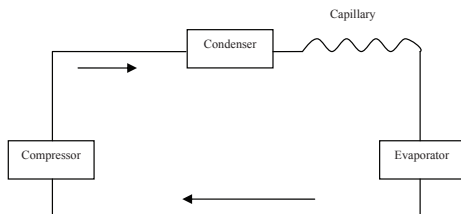
## TROUBLESHOOTING

Never repair or remove parts of the air-conditioner yourself. Unauthorised repair will invalidate any warranty and may cause harm to personnel injury or damage. If you encounter any of the problems listed in the table below or the recommended remedy does not work, contact the sales outlet where you purchased the unit is recommended.

Problem/fault	Cause	Remedy
The air-conditioner does not work	No power	Connect the unit to a live socket and turn it on.
	Full water indicator illuminates?	Drain the water stored in the unit.
	Ambient temperature too low?	It is recommended that this unit be operated at 10-35°C.
	The room temperature is lower than the set temperature in the cooling mode.	Change the set temperature
Bad cooling or heating effects	There is direct sunlight	Move unit into shaded area.
	The doors and windows are open, the room is crowded or there are other heat sources in the cooling mode	Close the door and window and add new air-conditioners
	Filter mesh very dirty	Clean or replace the filter mesh
	Air inlet or air outlet clogged	Remove the obstruction
Large noise	Air-conditioner not put on a flat surface	Put the air-conditioner on a flat and firm place (may reduce noise)
The compressor does not work	Initiation of overheat protection.	Wait 3 minutes until the temperature decreases and then turn on the unit
The remote control does not work	Too long a distance	Bring the remote control close to the air-conditioner and ensure that the remote control points toward the receiving head of the remote control.
	The remote control does not point toward the receiving head of the remote control	
	The batteries have no electricity	Replace the batteries
Display E1	Pipe temperature sensor failure	Refer to authorised repairer
Display E2	Room temperature sensor failure	Operation automatically restored when when unit has defrosted
Display E4	Anti-freeze protection	Restore the functions automatically once defrozen.
Full water indicator illuminates	The water in the baseplate of the unit reaches the full water level	Drain the water in the baseplate.

## APPENDIX

Fuse parameters  
 Model: FSD or 50F  
 Voltage: 240V  
 Current: 3.15A



Schematic diagram of the air-conditioner

For specific technical parameters of the models, refer to the rating label on the product.



Disposal: Dispose of unit in accordance with local regulatory requirements .