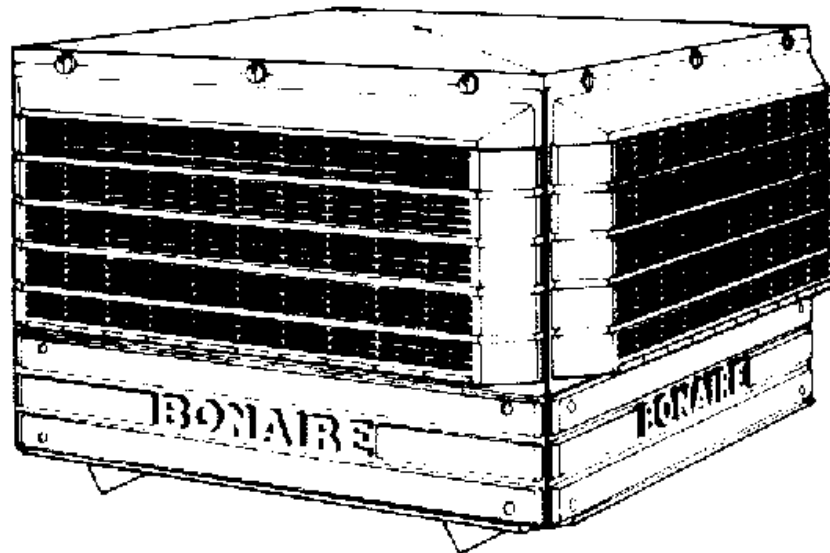




# BONAIRE

FRESH AIR CONDITIONING

## Operation and Maintenance Instructions



# DESIGNER SERIES

## DUCTED EVAPORATIVE AIRCONDITIONING



P/N: 0170217

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## CONGRATULATIONS ON YOUR CHOICE

We're delighted you've chosen a Bonaire Evaporative Airconditioner to cool your home. It is an airconditioner we are very proud of. Designed and Made in Australia, it embodies the latest advances in evaporative airconditioning technology in a stylish compact cabinet.

## INFORMATION

The information contained in the following pages has been prepared to ensure you enjoy trouble free operation of your Bonaire evaporative airconditioner.

## BONAIRE OPTIONS

- **Exhaust Function:** Bonaire is the only Australian manufacturer to offer an 'Exhaust Function' which enables the owner to remove hot stale or smokey air from the building.
- **Timer:** A 24 hour 'Timer', simple and reliable, allowing multiple preset timed operation of the unit, so that the building is cool in advance of returning home or switched off after you go to sleep.
- **Louvre Panels:** Coloured Louvre Panels in contemporary earth tones to match your roof and blend with the environment are available in three colours. Autumn Red, Olive Green and Chocolate. The standard Louvre Panel colour is Beige.  
Note: The optional colour choices will only be available for the following models: DS01, DS11, DS21, DS31.
- **Winter Covers:** Bonaire Winter Covers are available to protect your unit and prevent drafts through the system during the Winter season. Coloured Winter Covers are also available to match your choice of Louvre Panel for the following models only DS01, DS11, DS21, DS31.
- For Bonaire Designer Series Options contact your local Authorised Bonaire Specialist Dealer for details.

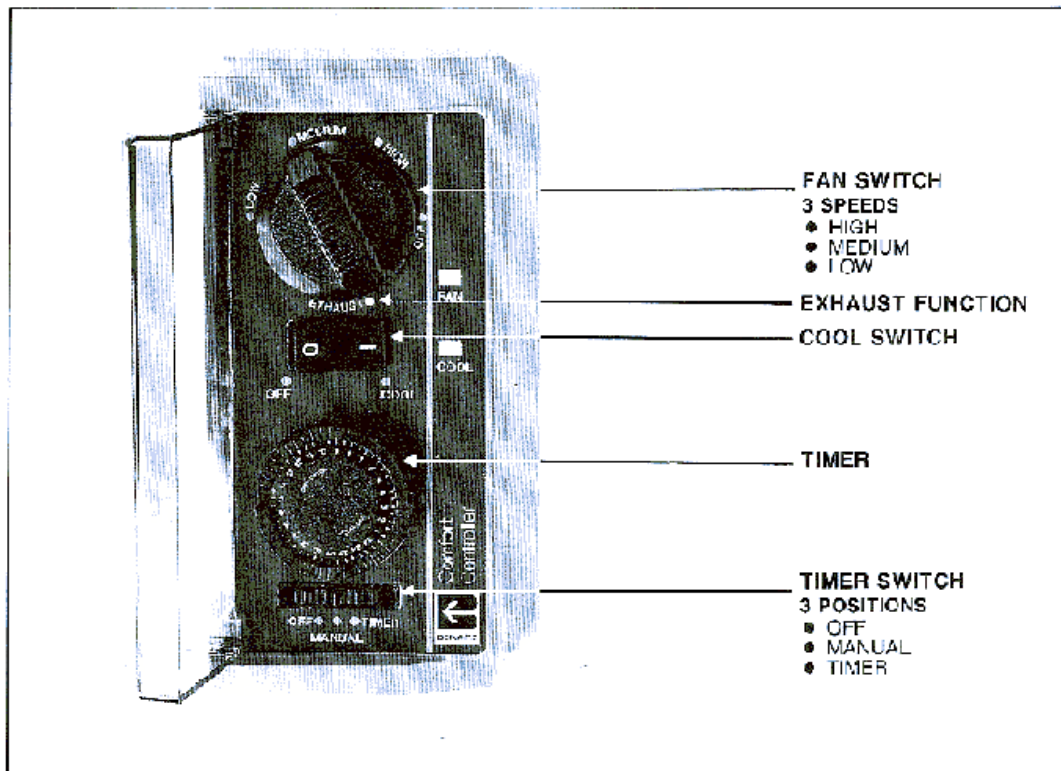
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## KEY OPERATIONAL POINTS

- 1.** Turning the unit On; press the 'COOL' switch to On; (to allow the filter pads to become saturated) for 10 minutes before turning the 'FAN' switch to the required speed, for maximum cooling.
- 2.** Always ensure that adequate windows and doors are open. (to allow hot stale air to be expelled from the building)
- 3.** Ventilation; Operate the unit with 'FAN' switch on and the 'COOL' switch off, to introduce fresh filtered outside air.
- 4.** Exhaust; (where fitted) operate the unit on Exhaust mode and the 'COOL' switch in the OFF position, to remove hot stale or smokey air without drafts.
- 5.** Turning the unit Off; press the 'COOL' switch to Off; (to allow the filter pads to dry) for 10 minutes before turning the 'FAN' switch off.
- 6.** Maintenance as outlined herein for maximum cooling efficiency and long life.

## COMFORT CONTROLLER

- Designed for simple operation so that making life comfortable is easy.
- The Comfort Controller may be located conveniently in an accessible position of your choice.
- Comfort Controller options, the 'Timer' and 'Exhaust Function' are available from your authorised Bonaire Specialist.  
Options may be included during the installation of your Bonaire Evaporative Airconditioner or at some later date.



## OPERATION

To operate your Bonaire Evaporative Airconditioner be sure to read and follow the instructions.

### Turning the Unit ON

- Ensure that the winter covers are removed from the unit and stored before commencing operation.
- Press the 'Cool' switch to ON ; (to allow the filter pads to become saturated) for 10 minutes before turning the 'Fan' switch to the required speed for maximum cooling.
- For units fitted with the Exhaust Function, it is recommended to press the 'Cool' switch to ON, and switch the Fan switch to Exhaust. This ensures the filter pads become saturated and simultaneously removes hot stale air from the building.

4.

## **OPERATION (Cont.)**

### **Opening windows and doors**

- It is important to ensure that windows and doors or air discharge outlets are open to allow room air to escape from the building, thereby setting up the evaporative airconditioning process.
- If insufficient ventilation is provided, conditions within the building may become uncomfortable.

### **Operating the Fan switch**

- Turn the Fan switch to the required speed to give the desired comfort level.
- To cool the building quickly, once the filter pads have been allowed to saturate, turn the Fan switch to High until the desired comfort level is achieved. Adjust the Fan speed to maintain the comfort level.

### **Fan Only Operation**

- To operate the Fan only, turn the Fan switch to the required speed, refer page (4.), and ensure that the 'Cool' switch is Off.
- Bonaire recommends that when conditions produced inside the building are too cold or when the outside conditions are extremely humid the unit may operate best on Fan only. Filtered fresh air is supplied to the building to give the desired comfort level.

### **Exhaust Operation (WHERE FITTED)**

- To remove hot stale or smokey air from the building turn the fan switch to Exhaust. Refer page (4.)
- It is not necessary to operate the cooling function whilst the unit is on exhaust mode.

**Note:** If the unit is in normal operation and you switch to exhaust, there will be a delay of 20 to 30 seconds before exhausting will commence. The same delay will occur when changing from exhaust to normal operation.

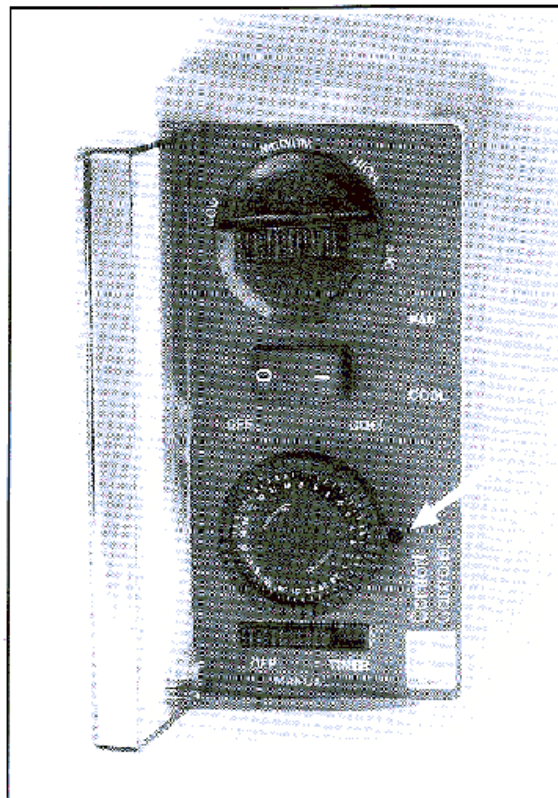
### **Turning the Unit OFF**

- Turn the 'Cool' switch to Off, allow the Fan to operate for 10 minutes so that the filter pads are allowed to dry; then turn the Fan switch to Off.

## SETTING THE TIMER

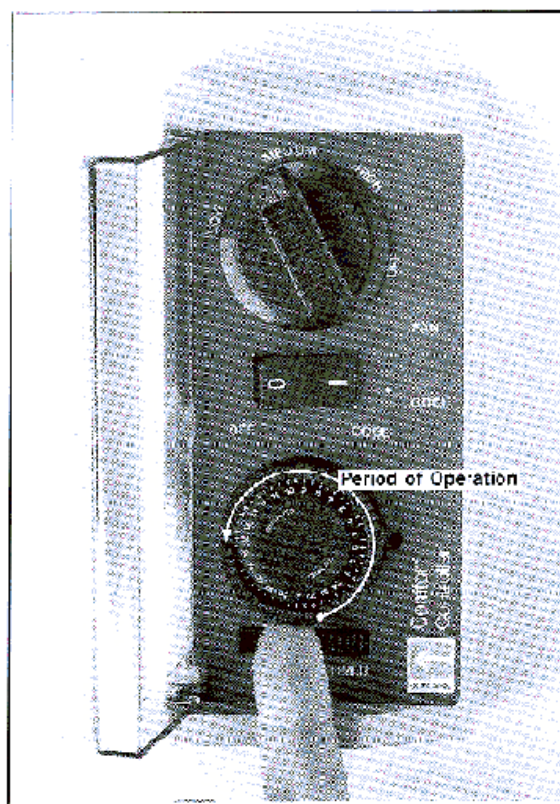
- The timer should be set on the hour or half hour, as each mark on the timer face represents a half hour.
- Rotate the timer face clockwise and align the correct hour/half hour mark with the current time of day to the red mark to the right as indicated adjacent.
- The timer is now set.

In this example the timer is 3.30 a.m



## SETTING THE AUTOMATIC OPERATING PERIODS

1. You can program the unit to "come on" and "go off" 48 times in a 24 hour period.
2. The timer face lugs are set 'down' which is the operating position.
3. To set the periods of non operation, pull the lugs outwards as indicated adjacent, to coincide with the time that you require the unit to switch off.
4. Automatic operating periods are now set.
5. To change the timer settings simply push the timer face lugs inward and set alternative lugs as required.



6.



## AUTOMATIC OPERATION

- For Automatic Operation

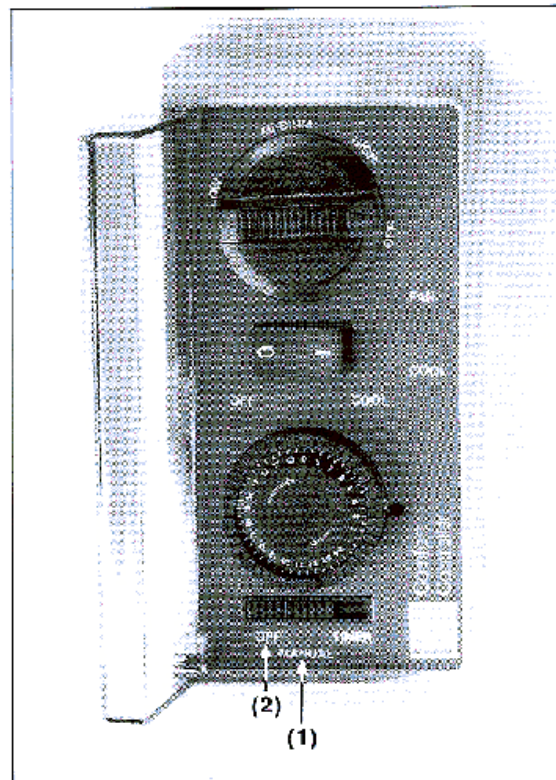
1. Set the timer
2. Set the operating periods
3. Set the timer switch to the "Timer" position
4. Switch the unit onto "Cool"
5. Turn the "Fan" switch to the desired speed

- The unit is now set for Automatic Operation

## OVERRIDING THE AUTOMATIC OPERATION

- Setting the 'Timer switch' to the Manual position, will allow the Fan and Cool switches to work without being under control of the Timer. See (1)
- Setting the Timer switch to the Off position, will isolate the Fan and Cool switches ceasing the operation of the unit. See (2)

**Note:** Resumption of the Timer operation may be initiated at anytime, by setting the Timer switch to 'Timer'.



## POWER SUPPLY INTERRUPTION

- The unit will not operate if power supply is interrupted (due to supply failure).
- The Timer will need to be reset — refer 'Setting the Timer'.
- When power is restored:—

If the unit is set on "Timer", operation will automatically recommence as per the preset period settings.

If the unit is set on "Manual", operation will recommence as per the manual setting.

# MAINTAINING YOUR BONAIRE EVAPORATIVE AIRCONDITIONER

- Correct maintenance of your Bonaire Evaporative Airconditioner is vital to the continued cooling efficiency and long life. It is also important in the control of sediment accumulation, and algae growth within the unit.
- Bonaire recommend two general services a year; Pre-Season, and Post Season. However in harsh conditions more frequent maintenance service may be required.

## Pre-season Checklist

- For the pre-season service, points outlined in the maintenance list pages (9, 10 & 11) should be checked.

1. Fan.....
2. Motor and Bearings.....
3. Water Level.....
4. Water Distribution.....
5. Bleed-off.....
6. Filter Pads.....
7. Water Tank.....
8. Electrical.....

## Post Season Checklist

- For the post season service the points outlined in the maintenance list should be checked.

1. Fan.....
2. Motor and Bearings.....
3. Water Level.....
4. Water Distribution.....
5. Bleed-off.....
6. Filter Pads.....
7. Water Tank.....
8. Electrical.....

- Upon completion of the Post Season service, fit your Bonaire Winter Covers (optional) to prevent drafts and loss of warm air through the system during the Winter season.

8.



## MAINTENANCE SERVICE

- Contact your local Authorised Bonaire Specialist Dealer.

*Dealer Stamp.*

## MAINTENANCE LIST

### NOTE:

Prior to commencing maintenance isolate the unit at the power source.

### 1. Fan:

Ensure that the Fan blade is free from obstruction and rotates; and is tight on the Fan shaft.

### 2. Motor and Bearings:

Ensure that the motor spins freely checking the bearings for noise. If motor bearings are noisy contact your local authorised Bonaire Specialist.

**Note:** Motor bearings are sealed ball races and require no oil or grease.

9.

## **MAINTENANCE LIST (Cont.)**

### **3. Water Level:**

Ensure the Float valve is correctly adjusted so that the water level is 20-25 mm from the top of the overflow standpipe.

- If The Float valve is leaking check the seat of the valve for possible impediment.
- Should impediment be present depress the float thereby flushing the valve seat.
- Should further treatment be necessary the valve can be dismantled by removing the split pin in the body and removing the plunger. There is a rubber seal on the front of the plunger which should be cleaned or replaced.

### **4. Water Distribution:**

Ensure That all distributor trough slots, (top of the louvre panels) and the supply lines are clear. also check that the pump filter is clean. It can be cleaned by lightly rubbing the outside of the filter.

### **5. Bleed-off:**

Ensure that an adequate 'bleed-off' rate is maintained during the operating season.

The bleed-off prevents the build up of dissolved solids and impurities within the unit.

If a build up of impurities is noticed, then the rate of bleed-off should be increased.

### **6. Filter Pads:**

Check the condition of the filter pads. Ensure that they are cleaned at regular intervals.

- Remove the complete Louvre panel and pad assembly and hose down as a unit to wash away any build up of impurities.
- In dusty environments cleaning may be required more frequently.
- Filter pads must be replaced every two years and where conditions are harsh; (i.e. poor water quality or extremely dusty environments) they should be replaced more frequently. (Contact your Bonaire Specialist for Genuine Bonaire Filter Pads)
- If Filter Pads have sagged, dropped away from the distribution trough, or are built up with sediment then they must be replaced.

## **MAINTENANCE LIST (Cont.)**

### **7. Water Tank:**

It is important to ensure that the water tank is kept clean, free of sediment, or algae growth.

- It is recommended that the water tank be drained and cleaned post season. In harsh conditions/poor water quality, more frequent draining may be necessary.
- To drain the tank 'turn off' the water to the unit at the isolating valve fitted by the installer adjacent to the unit.

Remove the 50 mm standpipe. The standpipe is a push in fit to the bush which has an "O" ring to stop leaking.

Be careful when removing the standpipe, hold bush while you rotate standpipe. left to right, then pull upwards.

When replacing, place some vaseline or grease on the "O" ring to enable easier entry of the standpipe.

- In areas of extremely poor water quality, Bonaire recommends the fitment of a dump valve (Aquatrol) contact your Bonaire Specialist.

### **8. Electrical:**

No general maintenance should be required on the electrical system.

**Note:** If the electric motor cuts out frequently on overload, contact your local Bonaire Dealer.

- Electrical connections should only be handled by a certified electrician.