

**IMPORTANT
OWNER MATERIAL**

THIS MATERIAL MUST BE
GIVEN TO THE OWNER

**OWNERS
MANUAL**

FOR FIXED INSTALLATION DOMESTIC
EVAPORATIVE AIR CONDITIONERS

*How to Operate
Using Your Air Conditioner
Getting the Best Results
Help
Warranty
Installation Report/Service*

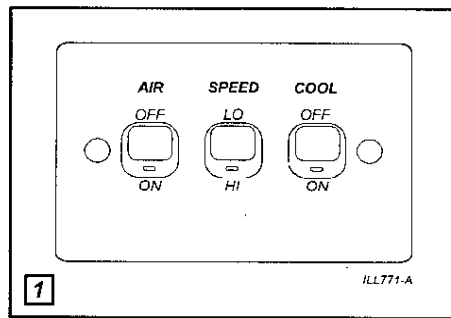
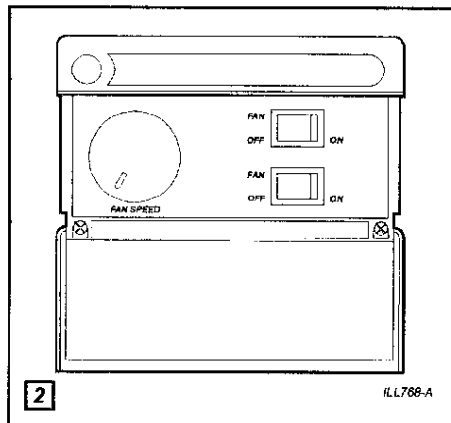
Breezeair
DUCTED FRESH AIR CONDITIONING

Please keep these instructions for future reference

Two Speed and Variable Speed Units.

Your evaporative air conditioner has control switches to provide for the benefits of fresh air ventilation and cooling at high and low air flows. There are two types of control switches available: Two Speed (see Fig. 1) and Variable Speed (see Fig. 2).

Your control panel offers independent control for the fan and cooling functions.

**Two Speed****Variable Speed****To Start the Air Conditioner**

- (1) Switch the COOL control on.
- (2) Turn on the AIR (fan) control and using the SPEED switch (HI/LO switch or variable knob), select the fan speed you require.

When ventilation only is required (air flow with no cooling) turn the COOL switch off, and select the fan speed to provide the air flow you require.

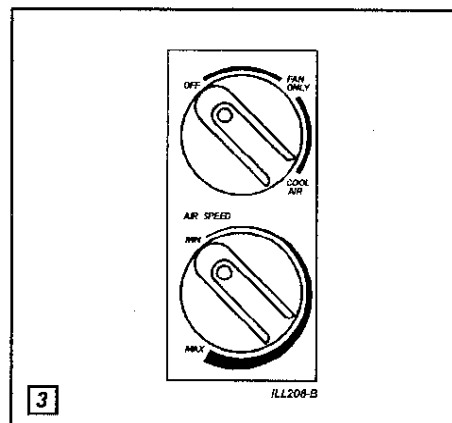
To Stop the Air Conditioner

Switch the COOL control off, then switch the AIR control off.

Wall Model

Use the top knob to either operate the FAN ONLY if ventilation is required, or to start the unit turn to COOL AIR (see Fig. 3).

The airflow can be adjusted to suit your requirements by rotating the AIR SPEED control knob.

**Wall Model**

NOTE: For Homemaker, Harmony and Horizon (remote control) units refer to separate Operating Instructions.

Evaporative air conditioners provide very effective cooling by drawing outside air through filter pads saturated with water. This water washes the air and cools it by a process of evaporation. There are a number of operating techniques and circumstances of which you should be aware to get the best performance from your evaporative air conditioner.

To provide effective cooling or ventilation, the air conditioner must be operated with sufficient openings to exhaust the air. For example: windows, doors or ducts. The location of the opening(s) will determine the pattern of cool air flow. The following are the minimum opening sizes required in square metres:

UNIT	AREA (m ²)
ES105 EA70	.3
ES125 EA90	.4
ES145 EA100	.5
ES165 EA120	.6
ES190 EA140	.7
ES210 EA 150	.8

In light wind conditions more cooling can be obtained by opening additional windows and doors. In windy conditions close openings facing the wind.

Generally, openings opposite the supply vents are best. Some experimentation will soon show the arrangement most suited to your requirements. For a multiple outlet system, this is generally 1 (one) window opened 100 to 150 mm per outlet.

For a short time, when operating with new filter pads, you may detect an odour like "wet timber". This is the filter material becoming conditioned to use.

In many areas the water supply is quite hard, when this water is evaporated through the filter pads, the hardness is deposited as a scale on the pad. To reduce this scale build-up and to retain efficient filter pads a small amount of water is drained off from the system. The continuous drain of small amounts of water ensures that fresh water is added to

dilute any build-up of scale or salts. The 'bleed' rate for your air conditioner will depend on local operating conditions and will be adjusted during installation.

WATERmanager™ electronic sensor

If your air conditioner is fitted with the WATERmanager™ electronic sensor, then it will automatically monitor the quality of the water in the air conditioner and when it detects a build-up of dissolved solids it will drain some water from the system and add some fresh water to optimise operating conditions and minimise water usage.

On extremely hot, dry days when running at the highest speed salts build-up rapidly in the water. The WATERmanager™ electronic sensor then operates frequently. In these conditions it will drain a similar water quantity to a conventional bleed system. However, most of the time less water evaporates, so less salt builds up and the WATERmanager™ electronic sensor operates less frequently. It is during these conditions that your WATERmanager™ electronic sensor saves thousands of litres of water compared to conventional "bleed" or "dump" systems.

On initial installation of your air conditioner, the WATERmanager™ electronic sensor will operate more frequently until residual salts in the filter pad are flushed away.

Drain System

If your air conditioner is fitted with a drain system, all water will be drained from the unit after 4 days of non-use (or after 3 hours with the 2 speed control box). This is to ensure that the tank remains dry when not in use, but also minimises water wastage).

Maintenance

To ensure that your air conditioner continues to provide reliable service for many years, it requires some routine maintenance (excluding Harmony/Horizon). There are two forms of maintenance:

- (1) pre and post season maintenance, and
- (2) preventative maintenance.

If you have an ES model and have chosen a Harmony/Horizon control system or a Variable control with a Drain Kit, then pre and post seasonal maintenance is performed by the air conditioner automatically.

All units, however, can benefit from routine preventative maintenance. This may be every other season, or more frequently if you are operating under harsh conditions.

- (1) Turn off the water supply.
- (2) Turn off the power supply.
- (3) Remove the filter pad frames.

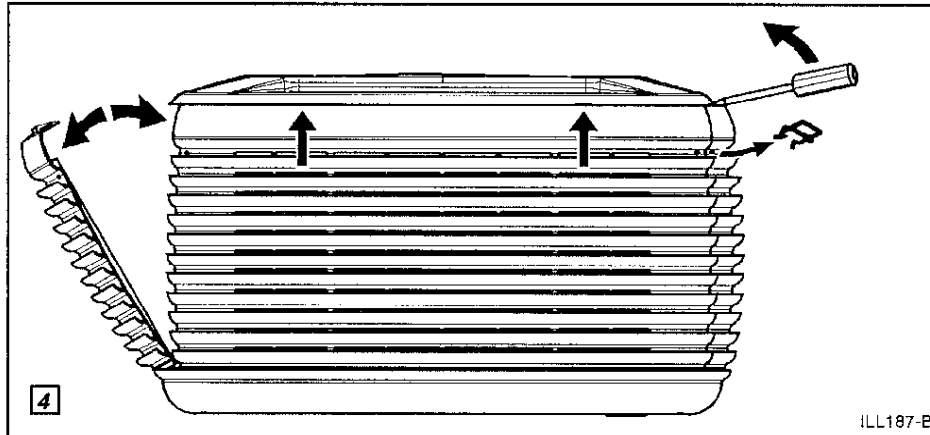
ES Units: Remove the pad corner retaining clips (4) by pulling them straight out. Then insert a screwdriver into the slots at the top of the pad frame and lever upwards. Pull the top of the pad frames away from the unit and lift them out of the cabinet (see Fig. 4).

EA Units: Insert a screwdriver into the slots at the bottom of the pad frames and lever upwards. Pull the bottom of the pad frames away from the unit, then lower the frames out of the cabinet (see Fig. 5, page 5).

- (4) Turn off the isolating switch.

(5) Hose both sides of the filter pads **CAREFULLY (do not use excess water pressure as this may create "holes" in the pad material)**. If your unit is fitted with wood wool, ensure that the wood wool pad material is evenly distributed.

Instructions continued on Page 5.



(6) Check and, if necessary, clean the water spreaders located inside the roof above the filter pads.

(7) Drain the water from the unit (on units fitted with drain systems this happens automatically). On other units remove the overflow or overflow bleed funnel. **Do not replace this item until next season. Do not lose the "O" ring seal.**

(8) Check pulleys for wear and correct alignment.

(9) Check "V" belt for wear.

(10) Thoroughly clean and dry the bottom of the water tank.

(11) Replace filter pad frames. Ensure they are the correct way up.

(12) If water flow appears low, there may be a problem with foreign material clogging the pump or pump strainer. To correct, remove pump, dismantle base, clean and reassemble.

During the Winter Months:

ES models: Are fitted with AUTOweatherseal™ damper and have Celdek filter pads.

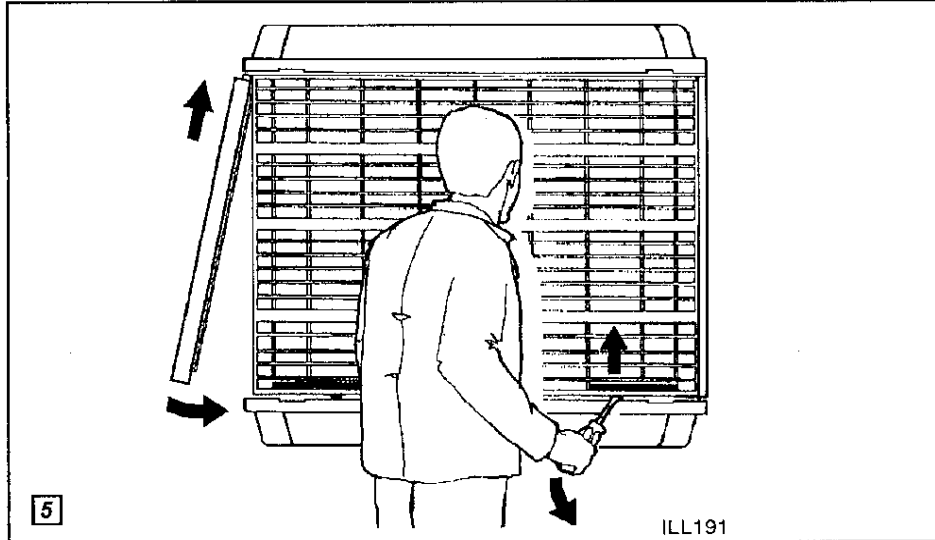
The AUTOweatherseal™ damper automatically latches minimising cold drafts and loss of warmth.

Celdek pads are specially treated and don't need any additional protection.

Other Models: A weather cover is recommended to prevent cold drafts.

Local Regulations: In some areas and for some commercial installations local regulations have specific requirements for the maintenance of evaporative air conditioning systems.

Generally these involve regular maintenance at (3) monthly intervals or more frequently if necessary.



It will not take long for you to get to know the features of your air conditioner, but in case you encounter difficulties here are a few hints to help keep you cool:

PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
Inadequate cooling.	Dry pads, or lack of water while air conditioner operating.	Check that the tap is turned on. Check pump and pump strainer. Check water distribution systems. Ensure pump (COOL) is turned on.
	Insufficient air discharge openings to allow air to exhaust from areas being cooled.	Adjust door / window opening.
	Pads shrunk away from the top corners (woodwool pads only).	Tease the woodwool out evenly or replace pads.
No air flow.	Air restriction in ductwork.	Call Dealer to investigate and rectify.
	Clogged or Dirty Filter pads.	Clean or replace pads.
	Circuit breaker tripped or unit fuse blown.	Replace the fuse specific to that unit. (See Breezair Installation Manual).
	Broken fan belt	Replace belt.
Air flow, but not cool.	Electrical fault.	Call Service (see Page 8).
	Insufficient water reaching filter pads.	Ensure water supply to unit is turned on. Clean pump strainer.
	Pump failure.	Call Service to repair.
Fan stops and then restarts.	Motor overload.	The fan motor is fitted with an automatic thermal overload protector which will be reset when the motor cools down. If the motor stops and starts continuously, it should be investigated for a fault by a qualified Technician.
Continuous overflow of water.	Float valve adjustment. Incorrect bleed rate.	Adjust float valve. Adjust bleed rate. Included on each bleed tray are plastic plugs with matching holes. With all plugs inserted, bleed rate is maximum. If you decide that the amount of bleed is too much, remove the plug/s from the bleed tray one at a time until the desired amount is achieved.
	Drain valve leak (where fitted). High salinity of supply water (WATERmanager™ only).	Clean seat, if it persists, call Service (see Page 8).

For additional information, if you have a remote control, refer to the help section on the Horizon Remote Control Operating Instructions.

CHECKLIST

- Unit level and secure.
- All roof or other penetrations properly sealed.
- Ductwork completed and air distribution checked and outlets correctly set.
- Mains wiring complete.
- Control switch correctly installed.
- Belt tension and alignment correctly adjusted.
- Fan runs in correct direction at all speeds (clockwise when viewed from pulley side).
- Motor power (tong) tested.
- Power input to motor recorded
 - High _____ amps.
 - Low _____ amps.
- Motor pulley adjusted and tight on shaft.
- Water bleed/drain/overflow fitting correctly installed.
- Water level and float adjustment checked.
- Filter material (wood wool) evenly packed in all pad frames.
- Pump runs and water evenly distributed to all filter pads.
- Bleed rate adjusted to _____lt/min.
- All control functions checked.
- Owner instructed in correct operating procedure.

Owners Name: _____

Telephone: _____

Address: _____

Dealer: _____

Installer: _____

Date Installed: _____

Model No.: _____

Serial No.: _____

If you have followed the instructions and still have problems, the BREEZAIR service network is only a phone call away. They can help with any aspect of operation you may not be sure of, or arrange for a service person to fix any faults.

However, please bear in mind that if a service call reveals no fault with the BREEZAIRunit, you may be charged for the call, even during the warranty period. In the first instance we recommend you contact the retailer from whom you purchased the unit. They will be familiar with your installation and will be anxious to rectify any difficulties.



FREECALL

1300 650 644

For all your Breezair warranty and service needs. Or contact your local Breezair dealer direct