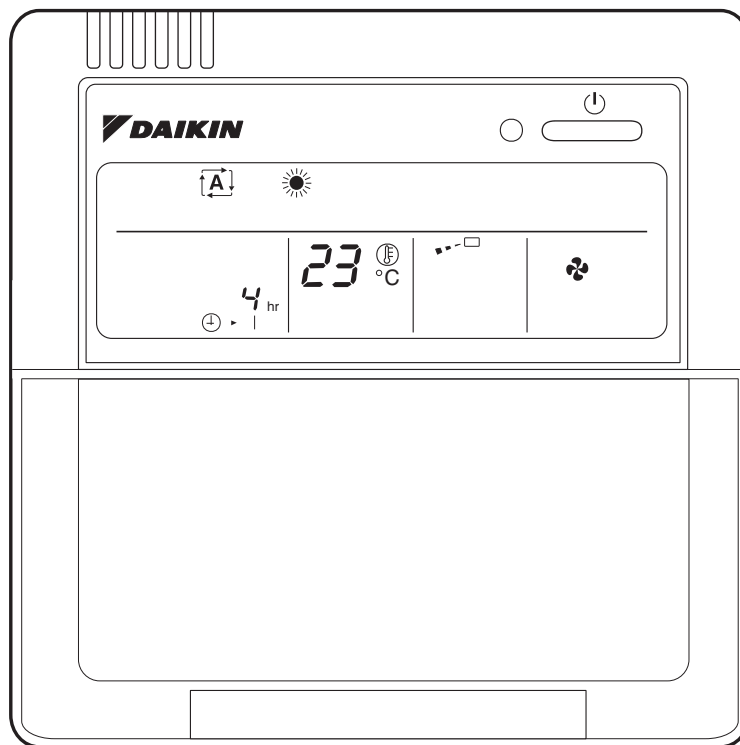


**DAIKIN**

# OPERATION MANUAL

## Split System Ducted Air Conditioner

To suit Daikin FDY "F" Series



(and other models incorporating BRC1C61 Remote Controller)

Dear Owner,

Thank you for installing a DAIKIN Fully Ducted Air Conditioning System. We believe that you have purchased the best air conditioning system available.

Before operating the air conditioner please read this operating manual carefully. It will advise you on how to operate the unit correctly, understand the air conditioners' advanced features and help you in the unlikely event that a problem should occur.

Please keep this manual in a safe place for future reference.

**DAIKIN AUSTRALIA PTY LTD**

# CONTENTS

<b>Important Safety Instructions</b> .....	2
Main Switch.....	2
<b>Functions of the Remote Controller</b> .....	4
<b>General Operation</b> .....	6
Cooling.....	6
Heating.....	6
Auto Heat / Cool.....	7
Program Dry.....	7
Fan Mode .....	8
Program Timer.....	8
Programming the Stop Time .....	8
Cancelling the Start and Stop Time.....	9
<b>Advanced Features</b> .....	9
Filter Clean Indicator .....	9
Defrost Function.....	9
Hot Start System.....	9
Automatic Restart .....	10
Dual Remote Control Operation.....	10
<b>Effective Operation</b> .....	10
<b>Self Diagnosis</b> .....	10
<b>Maintenance</b> .....	11

*The information provided in this manual is based on the default settings of the microprocessor control system incorporated in the unit. The default setting may be altered by the installer in which case the air conditioner (in particular the indoor fan) could operate in a manner slightly different to the description in this manual. Your installer should advise you of any alterations and their subsequent effect.*

## IMPORTANT SAFETY INSTRUCTIONS

- Never remove any fixed covers on the indoor or outdoor unit. Removal of the covers may expose fast moving fan blades or electrical components operating at a hazardous voltage. Contact with the blades or high voltage components may result in injury or electric shock.
- Never insert any objects into the openings in the indoor or outdoor unit. This may damage the product or result in injury to the person inserting the object.
- Do not expose the indoor unit or remote controller to rain or moisture. Water or other fluids on the electrical components may result in fire or electric shock.
- Always replace any blown fuse with a fuse of the same specification. The use of the wrong type fuse may allow the electrical wiring to overheat and catch on fire. If the correct type fuse continues to blow contact your installer or electrician.
- Never operate the air conditioner without the return air filter(s) in place. Operating the unit without the filter(s) will allow dust to enter the indoor unit and build up on the heat exchanger coil and fan motor. This will cause a malfunction of the unit which will not be covered by Warranty.
- This electrical appliance is not intended for use by young children. Young children should be supervised to ensure that they do not play with the outdoor unit.

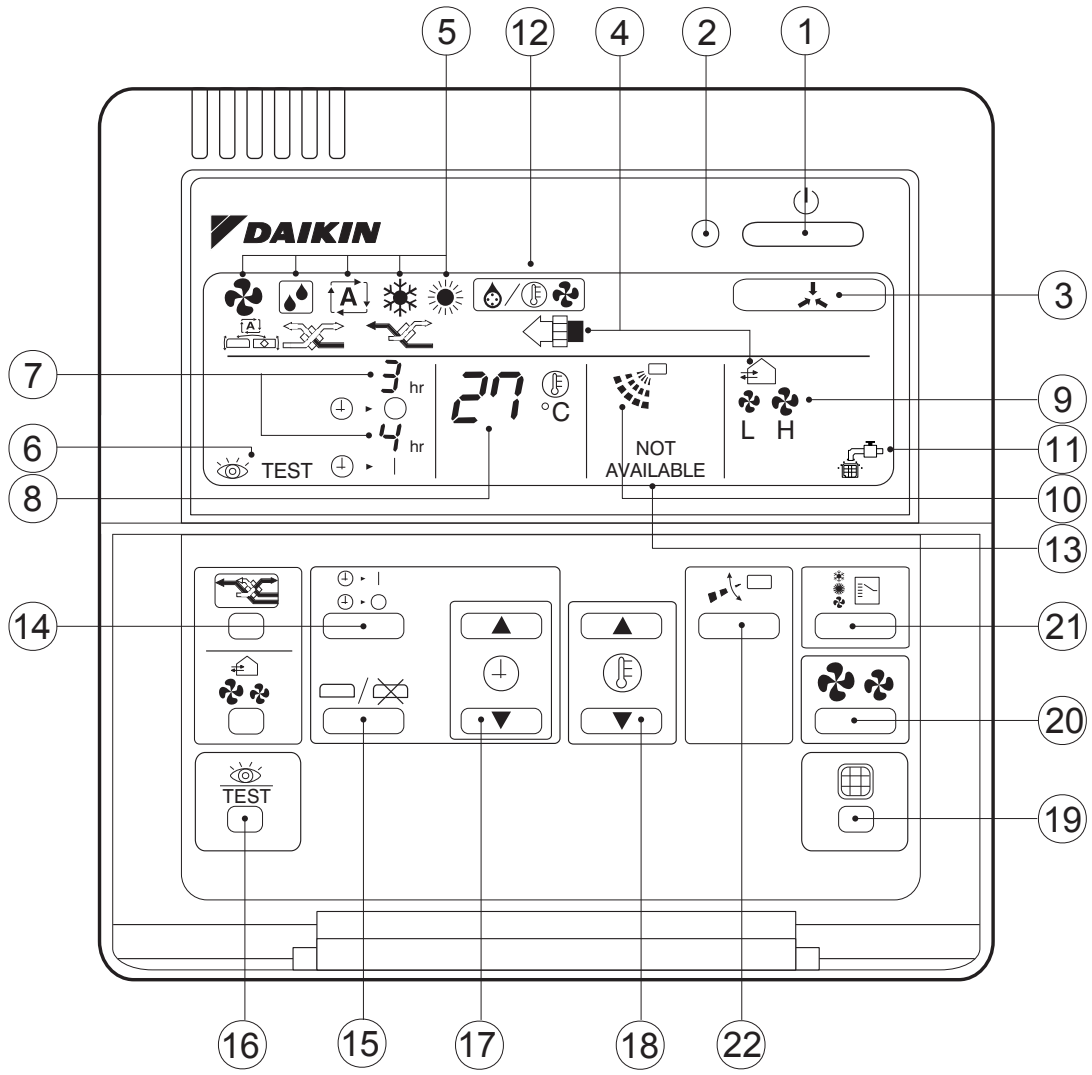
## MAIN SWITCH

Ensure that your installer shows you the location of the main power switch for the air conditioning system. This switch is normally located adjacent to the outdoor unit or in the fuse box / switchboard.

The main switch must be turned on at least 6 hours before the air conditioner is operated to warm up the compressor. Failure to do so may result in damage to the compressor which will not be covered by warranty.

If the air conditioner is not going to be used for an extended period of time or you are going away on holidays, the main switch should be turned off to prevent accidental operation of the air conditioner. Remember that the main switch must be turned back on at least 6 hours before operating the air conditioner.

# REMOTE CONTROLLER



## FUNCTIONS OF THE REMOTE CONTROLLER

All controls except for the ON / OFF BUTTON are located behind a swing down door on the bottom half of the remote controller. To access these controls simply open the door by gently pulling down on the finger grip located on the top right hand edge of the door. To close the door simply swing it back up until it clicks into the closed position.

Once the desired temperature, fan speed and mode of operation have been set there is no need to access the controls behind the door. Basic operation of the air conditioner is simply a matter of pressing the ON / OFF BUTTON.

Please note that the selected temperature, fan speed and mode of operation will always be displayed even when the air conditioner is not operating.

1. ON / OFF BUTTON

Press this button to start or stop the air conditioner.

2. OPERATION INDICATOR

This indicator illuminates (RED) when the air conditioner is operating.

3. CENTRALISED CONTROL INDICATOR

This symbol appears to indicate that the air conditioner is under control from an optional centralised control panel.

4. HEAT RECLAIM VENTILATOR INDICATOR

This symbol appears to indicate that the optional Heat Reclaim Ventilation Unit is operating. (for commercial use).

5. OPERATION DISPLAY

The following symbols show the current OPERATION MODE.

a. HEAT MODE INDICATOR

This symbol appears to indicate that the air conditioner is operating in the Heating Mode. (Heat Pump model only)

b. COOL MODE INDICATOR

This symbol appears to indicate that the air conditioner is operating in the Cooling Mode.

c. AUTO MODE INDICATOR

This symbol appears to indicate that the air conditioner is operating in the Automatic Heating / Cooling Changeover Mode. (Heat Pump model only)

d. DRY MODE INDICATOR

This symbol appears to indicate that the air conditioner is operating in the Program Dry Mode.

e. FAN MODE INDICATOR

This symbol appears to indicate that the air conditioner is operating in the Fan Only Mode (ventilation).

6. **TEST / INSPECTION INDICATOR**  
This symbol flashes to indicate that TEST / INSPECTION BUTTON has been pressed or that the microprocessor has determined that a fault condition has occurred.
7. **PROGRAM TIME INDICATOR**  
These symbols and numbers indicate the programmed start (on) and stop (off) time.
8. **SELECTED TEMPERATURE DISPLAY**  
This display indicates the desired room temperature.
9. **FAN SPEED DISPLAY**  
This display indicates the selected fan speed (ie. high or low).
10. **AIR FLOW DISPLAY**  
This function is not available for the FDY series.
11. **FILTER CLEAN INDICATOR**  
This symbol appears to indicate that the indoor return air filter may require cleaning.
12. **DEFROST INDICATOR**  
This symbol appears to indicate that the air conditioner is in the process of removing the build up of ice on the outdoor unit. (Heat Pump model only).
13. **NON FUNCTIONING DISPLAY**  
This display indicates that a particular function is not available.
14. **TIMER MODE START/STOP SELECT BUTTON**  
Press this button to select the setting for timer stop. Press the button a second time to select the setting for timer start.
15. **PROGRAM TIMER ON/OFF BUTTON**  
Press this button after entering the desired off/on time to initiate the timer function.
16. **TEST BUTTON**  
This button is for use by installation or service technicians only.
17. **PROGRAM TIME BUTTON**  
Push on the up arrow to increase the desired program stop / start time. Push on the down arrow to decrease the desired program stop / start time.
18. **TEMPERATURE SET BUTTON**  
Push on the up arrow to increase the desired room temperature. Push on the down arrow to decrease the desired room temperature.
19. **FILTER CLEAN RESET BUTTON**  
Press this button to reset the CLEAN FILTER INDICATOR after you have inspected / cleaned the indoor return air filter.

20. FAN SPEED SELECTOR BUTTON

Press this button to toggle between high and low fan speed.

21. MODE SELECTOR BUTTON

Press this button to change the desired mode of operation. (ie. fan, program dry, auto, cool, heat).

22. AIRFLOW DIRECTION ADJUST BUTTON

This function is not available for the FDY series.

## GENERAL OPERATION

### COOLING

1. Press the MODE SELECTION BUTTON (21) (if required) until the COOL MODE INDICATOR (5b) is displayed.
2. Select the desired room temperature (if required) by momentarily pressing on the up or down arrow TEMPERATURE SET BUTTON's (18) until the desired temperature is displayed. Each press of the button will increase or decrease the desired temperature by 1 degree. The desired temperature may be set in the range of 16 - 32 degrees.
3. Press the ON / OFF BUTTON (1) to commence operation. The OPERATION INDICATOR (2) will illuminate.
4. Select the desired fan speed (if required) by pressing the FAN SPEED SELECTOR BUTTON (20).
5. To turn the air conditioner off simply press the ON / OFF BUTTON (1). The OPERATION INDICATOR (2) will turn off.

### HEATING

(Heat Pump Models Only)

1. Press the MODE SELECTION BUTTON (21) (if required) until the HEAT MODE INDICATOR (5a) is displayed.
2. Select the desired room temperature (if required) by momentarily pressing on up or down arrow TEMPERATURE SET BUTTON's (18) until the desired temperature is displayed. Each press of the button will increase or decrease the desired temperature by 1 degree. The desired temperature may be set in the range of 16 - 32 degrees.
3. Press the ON / OFF BUTTON (1) to commence operation. The OPERATION INDICATOR (2) will illuminate.
4. Select the desired fan speed (if required) by pressing the FAN SPEED SELECTOR BUTTON (20).

*Notes: As the air conditioner incorporates a hot start system, the indoor fan will run at an extra low (or low) speed irrespective of the selected fan speed for a few minutes when the unit is first turned on. This is to avoid cold draughts.*

*During the heating mode you may notice the indoor fan changing speed. This is due to the fan switching from the selected fan speed to extra low (or low) when the desired room temperature is reached and the compressor cycles off. This is to avoid cold draughts.*

5. To turn the air conditioner off simply press the ON / OFF BUTTON (1). The OPERATION INDICATOR (2) will turn off.

*Note: On some occasions the indoor fan will continue to run at extra low (or low) speed for approximately one minute after the unit has been switched off. This is not a malfunction, it is simply a function of the unit which runs the indoor fan to remove any excess heat in the indoor unit heat exchanger.*

## **AUTOMATIC HEATING / COOLING CHANGEOVER**

(Heat Pump Models Only)

When the air conditioner is operated in this mode it will automatically switch between the heating and cooling mode depending on the room temperature and set temperature.

1. Press the MODE SELECTION BUTTON (21) (if required) until the AUTO MODE INDICATOR (5c) is displayed.

When the AUTO MODE is selected either the COOL or HEAT MODE INDICATOR will also be displayed along with the most recent temperature setting. (ie. if the last adjustment you made was to set the cooling mode temperature to 23° then when you select the AUTO MODE it will display AUTO COOLING at a temperature of 23°). The air conditioner will then measure the room temperature and select the applicable mode (ie. heating or cooling) based on the current and desired room temperature.

2. Adjust the desired room temperature (if required) by momentarily pressing on the up or down arrow TEMPERATURE SET BUTTON's (18) until the desired temperature is displayed. Each press of the button will increase or decrease the desired temperature by 1 degree. The desired temperature may be set in the range of 16 - 32 degrees.
3. Press the ON / OFF BUTTON (1) to commence operation. The OPERATION INDICATOR (2) will illuminate.
4. Select the desired fan speed (if required) by pressing the FAN SPEED SELECTOR BUTTON (20).
5. To turn the air conditioner off simply press the ON / OFF BUTTON (1). The OPERATION INDICATOR (2) will turn off.

## **PROGRAM DRY MODE**

When the air conditioner is operated in this mode the microprocessor will give priority to reducing the humidity level rather than the room temperature. (Please note that there may still be some reduction in room temperature depending on ambient conditions). This mode is normally used in very humid environments where the conditions may still be uncomfortable even though the room temperature is fairly low. The air conditioner will not enter the dry mode if the room temperature is below 16°C.

1. Press the MODE SELECTION BUTTON (21) (if required) until the DRY MODE INDICATOR (5d) is displayed.
2. Press the ON / OFF BUTTON (1) to commence operation. The OPERATION INDICATOR (2) will illuminate.



3. To turn the air conditioner off simply press the ON / OFF BUTTON (1). The OPERATION INDICATOR (2) will turn off.

*Please note that the SELECTED TEMPERATURE DISPLAY (8) and FAN SPEED DISPLAY (9) will not appear during PROGRAM DRY operation.*

## **FAN MODE**

When the air conditioner is operated in the FAN MODE only the indoor fan is energised. The outdoor unit will not operate and therefore heating or cooling will not be provided. This mode is useful for circulating the air within the building.

1. Press the MODE SELECTION BUTTON (21) (if required) until the FAN MODE INDICATOR (5e) is displayed.
2. Press the ON / OFF BUTTON (1) to commence operation. The OPERATION INDICATOR (2) will illuminate.
3. Select the desired fan speed (if required) by pressing the FAN SPEED SELECTOR BUTTON (20).
4. To turn the air conditioner off simply press the ON / OFF BUTTON (1). The OPERATION INDICATOR (2) will turn off.

*Please note that the SELECTED TEMPERATURE DISPLAY (8) will not appear during FAN MODE operation.*

## **PROGRAM TIMER**

The air conditioner can be programmed to automatically turn on or off in 1 hour increments up to 72 hours in advance. It may also be programmed to turn on for a determined time then off again or vice versa provided that the last operation (ie. switch on or off) is within 72 hours.

### **PROGRAMMING THE START/STOP TIME**

1. Press the TIMER MODE START/STOP BUTTON (14) once to enter the program STOP mode, or twice to enter the program START mode. The symbol O indicates STOP, and | START. The PROGRAM START/STOP TIME INDICATOR (7) will flash.
2. Select the desired START/STOP TIME by momentarily pressing on the up or down arrow PROGRAM TIME BUTTON's (17) until the desired elapsed time is displayed. Each press of the button will increase or decrease the elapsed time by 1 hour.
3. Once the desired START/STOP TIME is displayed press the PROGRAM TIMER ON/OFF BUTTON (15). The PROGRAM START or STOP TIME INDICATOR (7) will stop flashing and remain displayed.
4. Operate the air conditioner in the desired mode as described above. The PROGRAM START/STOP TIME INDICATOR (7) will count down towards zero. When zero is reached the air conditioner will start or stop operating depending on the program set.

It is possible to set both the start and stop time so that the air conditioner either starts after a predetermined time and then stops after a further predetermined time or stops after a predetermined time and then starts again after a further predetermined time.

This is achieved by setting both the on and off time as described above. For example if you require the air conditioner to stop in 3 hours time and then start up again 6 hours later you would program a stop time of 3 hours and a start time of 9 hours (ie. 3 + 6 hours).

## **CANCELLING THE START OR STOP TIME**

If you change your mind and do not want the air conditioner to automatically start or stop simply press the PROGRAM TIMER ON/OFF BUTTON (15) and the START or STOP TIME INDICATOR will extinguish.

## **ADVANCED FEATURES**

### **FILTER CLEAN INDICATOR**

The indoor microprocessor monitors the accumulated running time of the unit and after a preset number of running hours displays the FILTER CLEAN INDICATOR (11) on the remote controller. This indicator is a reminder to check and clean (if required) the return air filter(s).

After you have inspected and cleaned the filter(s) press the FILTER CLEAN RESET BUTTON (19) to extinguish the display and reset the accumulated time counter.

As the type of filter is selected by your installer it is not possible for us to describe the method of removing and cleaning the filter(s). Please consult your installer regarding the maintenance of the air filter(s).

### **DEFROST FUNCTION**

During heating at low outside air temperatures it is possible for frost to build up on the outdoor unit heat exchanger. This build up of frost will restrict the airflow through the heat exchanger and therefore the performance of the air conditioner will gradually be reduced. As the outdoor unit microprocessor is constantly monitoring system performance and ambient temperature it will recognise that frost is building up on the heat exchanger and activate the defrost mode.

When the unit enters the defrost mode both the indoor and outdoor fans will stop and the DEFROST INDICATOR (12) will be displayed on the remote control. The unit will remain in the defrost mode for around 4 to 8 minutes (10 min. max.) during which time the heat exchanger will warm up to defrost itself.

### **HOT START SYSTEM**

(Heat Pump Models Only)

To prevent a cold blast of air when the air conditioner turns on in the heating mode the indoor unit incorporates a computer controller hot start system.

The indoor unit microprocessor monitors the temperature of the indoor heat exchanger and operates the indoor fan at a speed lower than the normal low until the heat exchanger temperature reaches a target temperature. When this target is reached the fan switches from extra low to set speed. (FDY90 operates at low speed) The air conditioner will then operate at normal low until a second higher target temperature is reached at which point the fan will switch to selected speed. This hot start feature is also utilised after defrost and during the heating cycle when the compressor switches back on after the room temperature has fallen more than 1°C below the selected temperature.

## AUTOMATIC RESTART AFTER POWER FAILURE

If the air conditioner is operating during a power failure it will automatically restart in the same mode when the power is restored.

## DUAL REMOTE CONTROL OPERATION (Optional)

A second (optional) remote control may be added to the system to allow setting and control of the unit at two different locations. This is particularly useful in two storey applications where one controller can be installed upstairs and the other controller downstairs. When dual controls are used the air conditioner will obey the last command entered into either controller. Both controllers will display the same information so if the temperature on the downstairs controller is increased from 21 to 23 degrees, the upstairs controller will also indicate 23 degrees. This feature is not available if the optional set back time clock (BRC15A61) is used.

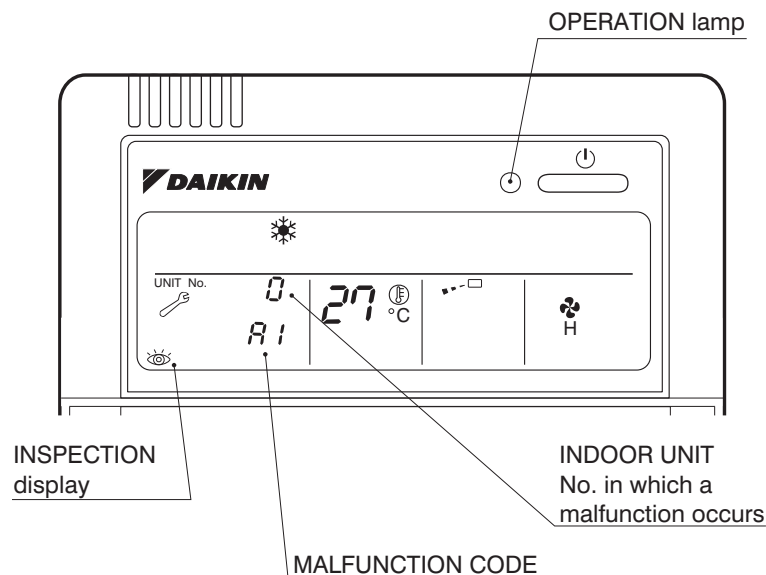
## EFFECTIVE OPERATION

For best results from your air conditioner we recommend the following:-

- Do not leave open any windows or door which will allow the loss of conditioner air.
- Draw blinds or curtains over windows to prevent direct sunlight entering during the cooling cycle.
- Set the desired room temperature to avoid excessive heating or cooling.
- Keep the air filters clean.

## SELF DIAGNOSIS FUNCTION

In the unlikely event that a fault develops with the air conditioner the microprocessor in the indoor and outdoor units will diagnose the fault (where possible), display a unique fault code on the remote controller (see below) and flash the OPERATION INDICATOR (2) on and off. If this occurs take a note of the fault code (eg. E9) and contact your installer. This code will indicate to the installer / repairer what the problem may be.



## MAINTENANCE

- Regularly clean the indoor return air filter(s).
- Regularly inspect the outdoor unit to ensure the heat exchanger coil (aluminium fins) and fan outlet are not obstructed by vegetation or any other foreign objects.
- Clean the outdoor unit heat exchanger coil annually or as required by location or outdoor air quality. The coil may be cleaned by spraying the fins with low pressure water in a downwards direction (ie. simulating heavy rain). Alternatively have the work done by your installer.
- Regularly check the paint work of the outdoor unit for scratches or signs of corrosion. Apply touch up or anti-corrosion paint as necessary.

---

### DAIKIN AUSTRALIA PTY LIMITED

A.B.N 62 000 172 967  
(Incorporated in NSW)

#### **New South Wales**

77-83 Alfred Road  
Chipping Norton 2170  
Ph. (02) 9725 8888

Unit G, Garden Grove Centre  
Adamstown 2289  
Ph. (02) 4952 7104

#### **South Australia**

155 Fullarton Road  
Rose Park 5067  
Ph. (08) 8130 7300

#### **Queensland**

75 Secam Street  
Mansfield 4122  
Ph. (07) 3349 5711

20 Ronald Court  
Bohle 4818  
Ph. (07) 4774 4710

#### **New Zealand**

3 Goodman Place  
Penrose Auckland 6 NZ  
Ph. (09) 622 3464

#### **Victoria**

Unit A4,2A Westall Road  
Clayton 3168  
Ph. (03) 9590 8555

#### **Western Australia**

19 Dowd Street  
Welshpool 6106  
Ph. (08) 9353 8555