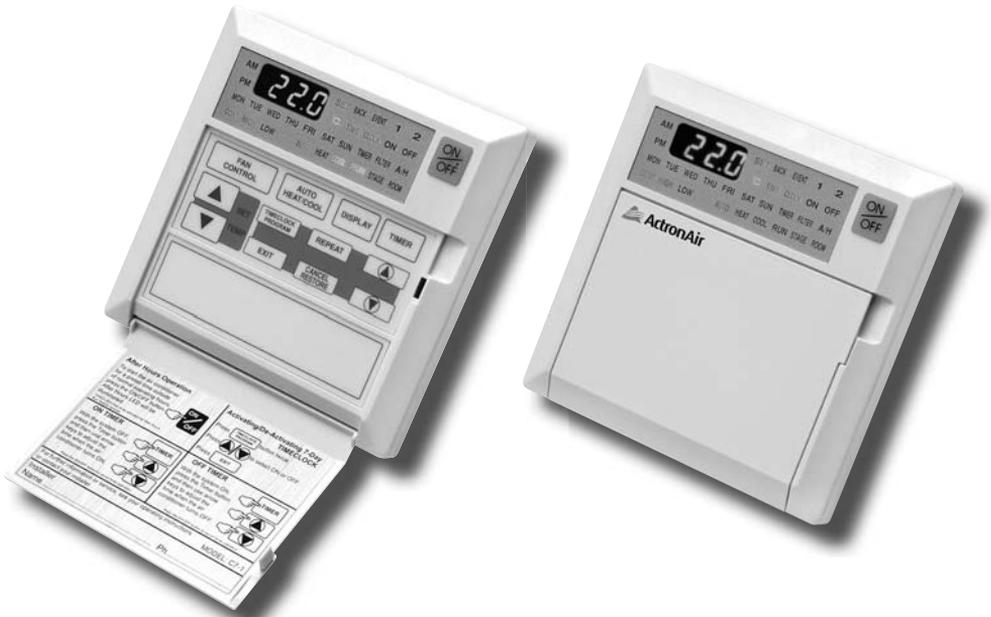




ActronAir

C SERIES

OPERATING INSTRUCTIONS FOR ACTRON AIR C SERIES CONTROL SYSTEM



CONGRATULATIONS: on your purchase of an Actron Air air conditioning system. This unit has been meticulously designed to achieve maximum energy efficiency. It is manufactured from the highest quality materials has passed numerous “in house” and “external” inspection procedures, ensuring years of satisfactory operation.

This “easy to read” Operating Instruction Manual is supplied to increase your understanding of the system. It will show “step by step” instructions on:

- How to operate the system most effectively.
- How to save on energy costs.
- How to maintain your system.

Please read this booklet carefully

ACTRON ENGINEERING PTY LTD

GENERAL INFORMATION

YOUR ACTRONAIR SYSTEM IS A STATE OF THE ART PRODUCT with its Microprocessor Control it automatically filters, circulates and conditions by cooling or heating the indoor air to give you complete year-round climate control.

INSIDE THIS MANUAL You will find instructions for C-Series 7-Day Programmable controller (C7).

SUMMER OPERATION is when your system is operating on COOLING CYCLE, the room air is circulated through the filter and indoor unit where heat, excess moisture and dust are removed. The clean, cool air is then returned to your room. Dust and other airborne particles are trapped in the filter, and condensed moisture is drained away. The indoor heat is transferred by interconnecting refrigeration pipes to the outdoor unit, which then exhaust this heat to the outdoor atmosphere.

WINTER OPERATION is just the reverse use of the system to obtain heat into our rooms. During the HEATING CYCLE the outdoor unit extracts heat from the outside air and then transferred by the same interconnecting pipes to the indoor unit where the circulated air is heated and returned to your rooms. Again, the room air is filtered reducing dust and other particles. During heating cycle you may notice water running from the outdoor unit. This is due to moisture from air condensing on the outside coil surface. Thus is normal during winter operation.

SAFETY AND OPERATION PRECAUTION

ACCESS PANELS AND GUARDS: NEVER remove any access panels or guards as this could cause injury from electric shock and burns from extremely hot components. Never allow any bodily parts such as fingers or objects to protrude through the fan guards or any other opening as they could cause personal injury and damage the air conditioner.



RETURN AIR FILTER: The air conditioner must never be operated without a return air filter as this will allow a build up of dust etc on the Indoor Coil. This is very difficult to clean and causes the system to operate inefficiently or even fail.

CRANKCASE HEATER PRECAUTION: The main power (Outside switch board) to the system must be kept ON at all times to prevent damage to the outdoor compressor unit. Should the main power be disconnected or interrupted for 6 hours or longer, then no attempt should be made to start the system for 2 hours after the power has been restored to outdoor unit. This allows the compressor to warm up, and remove any liquid refrigerant that may cause damage.

Copyright ©2011

All rights reserve. No part or contents of this book maybe reproduced or transmitted in any form or by any means without the written permission of Actron Engineering Pty. Ltd.

CONTENTS

General information.....	Page 1	Programming the events.....	Page 18
Safety and operation precautions.....	Page 1	Cancelling an individual event.....	Page 19
System information.....	Page 2	Repeating a days event and times	
Advance features.....	Page 3	times.....	Page 20

Basic Operation

Wall controller functions.....	Page 4
Circulation operation.....	Page 6
Cooling operation.....	Page 7
Heating operation.....	Page 8
Auto operation.....	Page 9
Display button.....	Page 10
Off timer function.....	Page 11
On timer function.....	Page 12
After hours operation.....	Page 13
Enabling and disabling after hours.....	Page 14

7-Day Programmable Model

Timeclock operation.....	Page 15
Setting the time and day.....	Page 16
Activating and deactivating 7-Day timeclock.....	Page 17

Additional Features

Zone controller functions.....	Page 21
Temperature set point range limit.....	Page 22
Temperature setback.....	Page 23

Additional Features

Tips for cold winter/hot summer.....	Page 24
Operating tips for extreme weather (Winter).....	Page 25
Operating tips for extreme weather (Summer).....	Page 26
Energy conservation tips.....	Page 27
Maintenance.....	Page 28
Trouble shooting.....	Page 29
Resetting wall control.....	Page 30
Memo.....	Page 30

SYSTEM INFORMATION

Air Conditioner

Model No.	
------------------	--

Serial No.	
-------------------	--

The air conditioner model and serial number is situated on the access panel of the outdoor unit bottom left corner.

Wall Controller

Model No.	
------------------	--

The wall controller model number is situated inside the wall controller flip lid.

Installer

Company Name	
---------------------	--

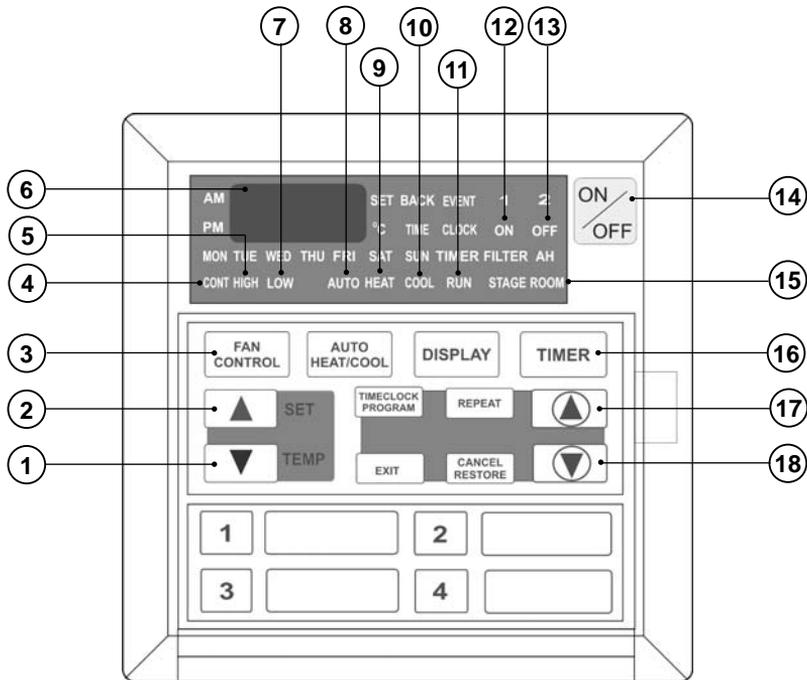
Phone Number	
---------------------	--

Technicians Name	
-------------------------	--

ADVANCE FEATURES

1	<p>Auto-Restart After Power Failure Should a power failure occur whilst the air conditioner is running, the wall controller will restart the air conditioner in the same mode when the power is restored.</p>
2	<p>7 - Day Programmable A fully programmable 7-Day TIMECLOCK feature allows you to set the air conditioner to turn on and off at different times for each day of the week. Each day can have two programmed events. Each event has an on and off time (See 7-Day Programmable Operation section, page 15).</p>
3	<p>One Touch after Hours Time Function To start air conditioning system for a preset time outside of normal operating hours press ON / OFF button. To turn off air conditioning system before the completion of preset run time, press ON / OFF button again.</p>
4	<p>Integrated Zoning (Optional) A zone control option is available to control up to 4 zone areas. The integrated zoning system has a unique feature, where it can select which remote temperature sensor to use depending on which zones are selected. One example is on a two-storey house with only the downstairs zone on. The zone control will select the downstairs sensor to control the temprature, thus ensuring the perfect comfort in the area occupied. (See zone controller functions, page 21).</p>
5	<p>Auto Defrost Function (Heating Mode) At certain outdoor conditions (low temperature) there may be a build up frost on the outdoor heat exchanger. This gradual build up frost reduces the performance of the air conditioner. the microprocessor detects this frost build up and will automatically activate the defrost mode. The defrost mode is displayed on the wall controller by flashing the heat light every second.</p>
6	<p>Setback Operation Temperature setback is useful in unoccupied times or during the night to maintain a maximum or minimum room temperature. Setback changes the operating set points to provide cooling and heating if the temperature rises or falls to these minimum and maximum setback settings. (See temperature setback, page 23).</p>
7	<p>Hot Start Function (Heating Mode) When the air conditioner starts in heating mode, the indoor fan is delayed for a short period of time, this allows the heat exchanger to warm up before the air flow starts, thus preventing cold drafts. The hot start feature also activates itself when the system finishes defrosting.</p>
8	<p>Filter Clean Light The microprocessor monitors the accumulated run time of the air conditioner and after a preset number of hours has passed, the "Filter" light will flash, indicating it's time to check if filter needs cleaning. (See Maintenance section, page 28)</p>
9	<p>Self Diagnosis In the unlikely event that a fault develops with the air conditioner the microprocessor will diagnose the fault (where possible) and display a fault code on the wall controller. (See trouble shooting, page 29)</p>

WALL CONTROLLER FUNCTIONS



1 Temperature setting button

Lowers room temperature.

2 Temperature setting button

Raises room temperature.

3 Fan control button

Changes fan speed and select continuous or non-continuous fan operation.

4 Continuous indicator

Is illuminated when fan is set to continuous mode.

5 High fan speed indicator.

6 Digital display

Display setpoint, room temp, timer hours

7 Low speed fan indicator

8 Auto indicator

This light indicates the system will automatically select heating or cooling operation.

9 Heat indicator

10 Cool indicator

11 Run indicator

Run light is illuminated when the outdoor machine is running.

12 ON indicator

13 OFF indicator

14 ON / OFF button

15 Room temperature indicator

Flashes when digital display is showing room temperature.

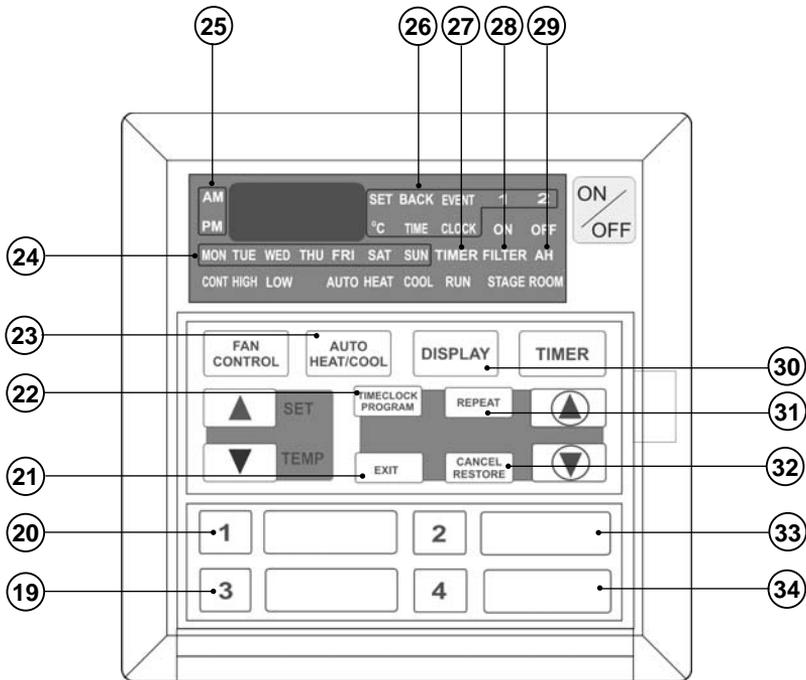
16 Timer operation button

Activates timer.

17 Timeclock program up arrow setting button

18 Timeclock program down arrow setting button

WALL CONTROLLER FUNCTIONS



19 Zone three button

20 Zone one button

21 Exit button
For quick exit from any program menu.

22 Time clock program button
For setting the clock / entering the 7-day time clock menu.

23 Operation mode button
Selects cooling, heating & auto modes.

24 Day indicator
Display the day of the week when the time is shown and which day is selected for programming.

25 AM / PM indicator

26 Program and event menu

27 Timer indicator

28 Filter indicator
(See maintenance section, page 28).

29 After hours indicator light

30 Display button
Toggles between displaying set temp., time and room temp.

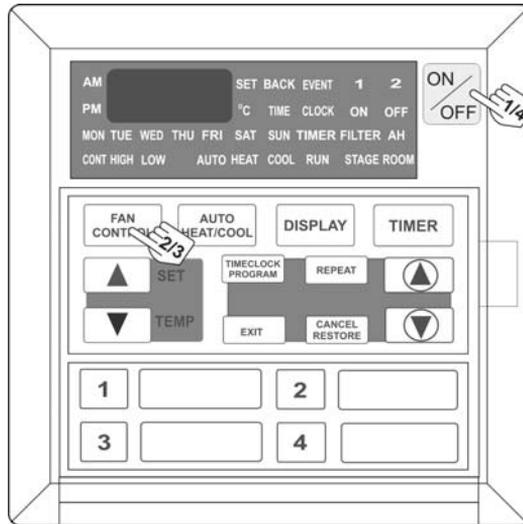
31 Repeat indicator
For repeating the previous day settings to current day.

32 Cancel / Restore button

33 Zone two button

34 Zone four button

Circulation Operation

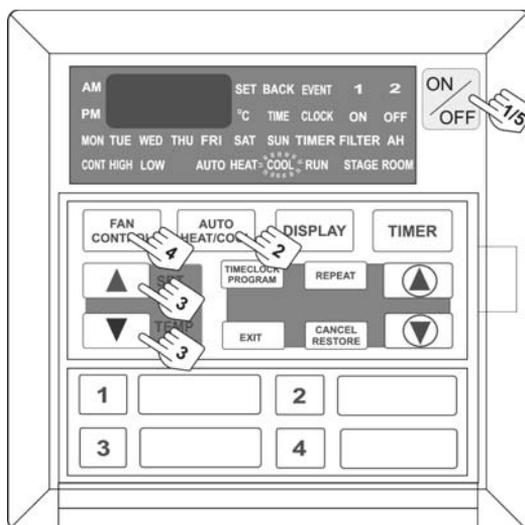


1	Make sure the system is off.
2	Press the FAN CONTROL button.
3	Adjust the FAN SPEED by pressing the FAN CONTROL button. The fan speed can be set to: <ul style="list-style-type: none"> • Low (LOW is illuminated) • High (HIGH is illuminated)

OFF

4	Press ON/OFF button again. The system will retain your last setting until next operation.
----------	---

Cooling Operation

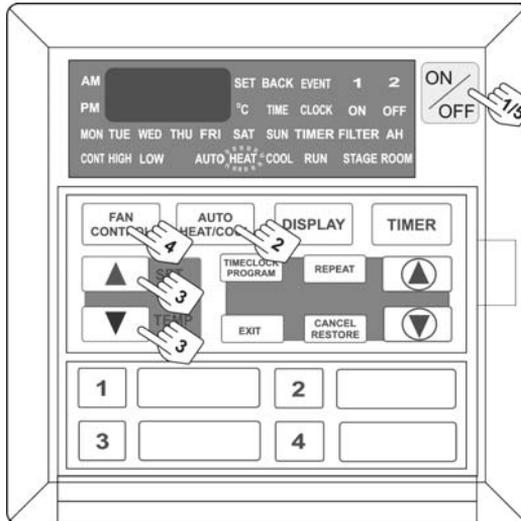


1	Press ON/OFF button
2	Press the  button until “COOL” is illuminated.
3	Set the desired temperature by pressing either the UP or DOWN arrow key. <ul style="list-style-type: none"> • Maximum temperature setting 28°C. • Minimum temperature setting 16°C. • For a WARMER room temperature, press the UP arrow key. • For a COOLER room temperature, press the DOWN arrow key.
4	Adjust the desired fan speed by pressing the FAN CONTROL button. <p>When your air conditioner is turned ON the indoor fan can run continuously and is indicated by the CONT. light. This is generally preferred during the cooling mode to ensure maximum air circulation. However, during the heating mode this can create the effect of cool drafts. It then would be preferable to have the indoor fan, cycle On and Off automatically with the Outdoor Unit. This is selected by pressing the FAN button until the CONT. light is Off.</p>

OFF

5	Press ON/OFF button again. The system will retain your last setting until next operation.
----------	---

Heating Operation



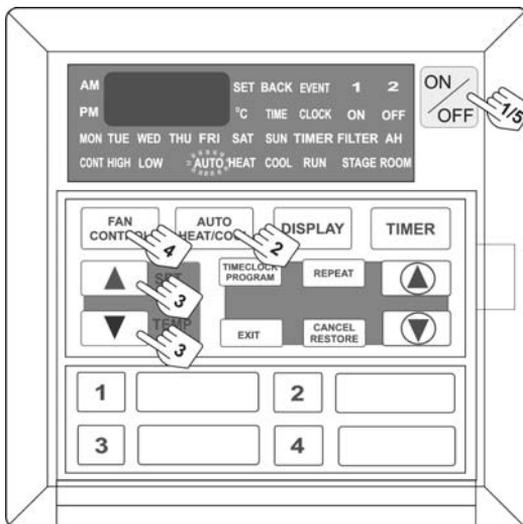
1	Press ON/OFF button
2	Press the  button until “HEAT” is illuminated.
3	Set the desired temperature by pressing either the UP or DOWN arrow key. <ul style="list-style-type: none"> • Maximum temperature setting 28°C. • Minimum temperature setting 16°C. • For a WARMER room temperature, press the UP arrow key. • For a COOLER room temperature, press the DOWN arrow key.
4	Adjust the desired fan speed by pressing the FAN CONTROL button. <p>When your air conditioner is turned ON the indoor fan can run continuously and is indicated by the CONT. light. This is generally preferred during the cooling mode to ensure maximum air circulation. However, during the heating mode this can create the effect of cool drafts. It then would be preferable to have the indoor fan, cycle On and Off automatically with the Outdoor Unit. This is selected by pressing the FAN button until the CONT. light is Off.</p>

OFF

5	Press ON/OFF button again. The system will retain your last setting until next operation.
----------	---

Auto Operation

Automatically changes between heating and cooling



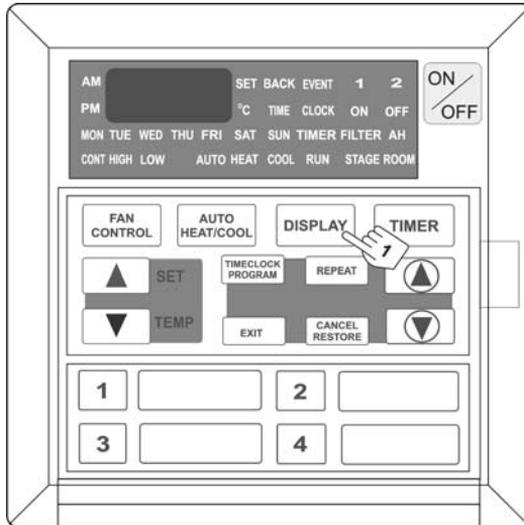
1	Press ON/OFF button
2	Press the  button until “AUTO” is illuminated.
3	<p>Set the desired temperature by pressing either the UP or DOWN arrow key.</p> <ul style="list-style-type: none"> • Maximum temperature setting 18°C. • Minimum temperature setting 16°C. • For a WARMER room temperature, press the UP arrow key. • For a COOLER room temperature, press the DOWN arrow key.
4	<p>Adjust the desired fan speed by pressing the FAN CONTROL button.</p> <p>When your air conditioner is turned ON the indoor fan can run continuously and is indicated by the CONT. light. This is generally preferred during the cooling mode to ensure maximum air circulation. However, during the heating mode this can create the effect of cool drafts. It then would be preferable to have the indoor fan, cycle On and Off automatically with the Outdoor Unit. This is selected by pressing the FAN button until the CONT. light is Off.</p>

OFF

5	<p>Press ON/OFF button again.</p> <p>The system will retain your last setting until next operation.</p>
----------	--

Display Button

Shows different setting details on the screen display.



1 Repeatedly pressing the display button toggles through the following:

Temperature Set Point displayed

Indicated by SET and °C lights being illuminated.

Time displayed

Time and Day displayed.

Room temperature displayed

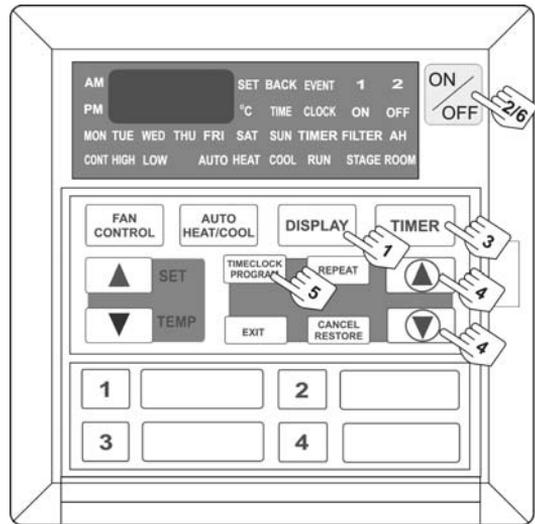
Indicated by ROOM and °C lights being illuminated.

Timer Operation

OFF Timer Function

Notice

- When the air conditioner is started by the timer function, it will only start in Auto mode.
- Timer Operation cannot turn ON Fan only mode.
- Timer function does not work when after hours is enabled. See page 14 for disabling after hours.



1	Press the DISPLAY button until the Time or Set Temp is displayed.
2	Ensure that air conditioner is ON Make sure the system is running and the operating conditions are those desired.
3	Press the timer button <ul style="list-style-type: none"> • TIMER and OFF indicators will flash • Display shows the selected off time.
4	Set the desired OFF time by pressing either the UP or DOWN arrow buttons. <ul style="list-style-type: none"> • The UP/DOWN arrow buttons must be pressed while TIME and OFF are flashing. • The timer can be set from 15 mins. to 24 hours duration (in 15-mins. period)
5	Once the desired OFF time has been selected, press the TIMECLOCK PROGRAM button to enable the Timer The timer indicator now illuminated. If not, repeat the process again but make sure you press timeclock program while the timer light is still flashing to confirm.

Cancelling OFF Timer

6	Press ON/OFF button again. OFF timer is cancelled and the air conditioner stays ON.
----------	---

Changing the OFF Timer duration

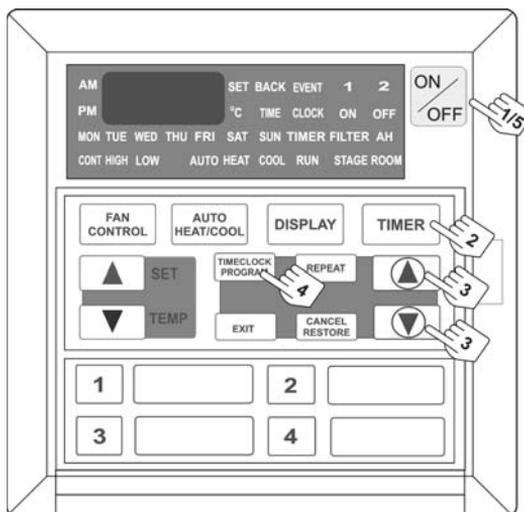
7	To change the Off timer, follow step 3 to 5.
----------	---

Timer Operation

ON Timer Function

Notice

- When the air conditioner is started by the timer function, it will only start in Auto mode.
- Timer Operation cannot turn ON Fan only mode.
- Timer function does not work when after hours is enabled. See page 14 for disabling after hours.



1	Ensure the air conditioner is off.
2	Press the timer button <ul style="list-style-type: none"> • TIMER and OFF indicators will flash • Display shows the selected off time.
3	Set the desired ON time by pressing either the UP or DOWN arrow buttons. <ul style="list-style-type: none"> • The UP/DOWN arrow buttons must be pressed while TIME and ON are flashing. • The timer can be set from 15 mins. to 24 hours duration (in 15-mins. period)
4	Once the desired ON time has been selected, press the TIMECLOCK PROGRAM button to enable the Timer The timer indicator now illuminated. If not, repeat the process again but make sure you press timeclock program button while timer light is flashing.

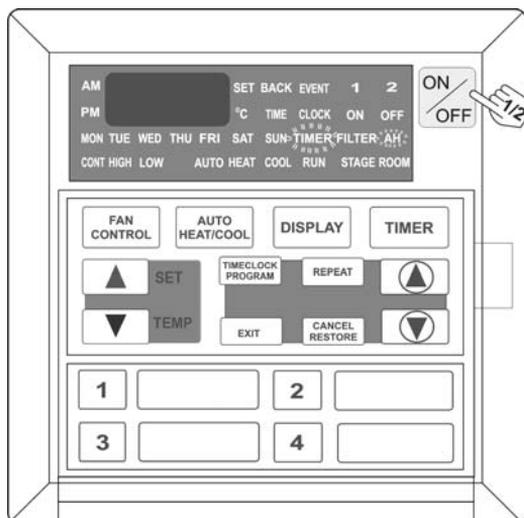
Cancelling ON Timer

- | | |
|----------|---|
| 5 | Press ON/OFF button again.
Timer is cancelled and the air conditioner stays ON. |
|----------|---|

Changing the ON Timer duration

- | | |
|----------|---|
| 6 | To change the Off timer, follow step 2 to 4. |
|----------|---|

After Hours Operation

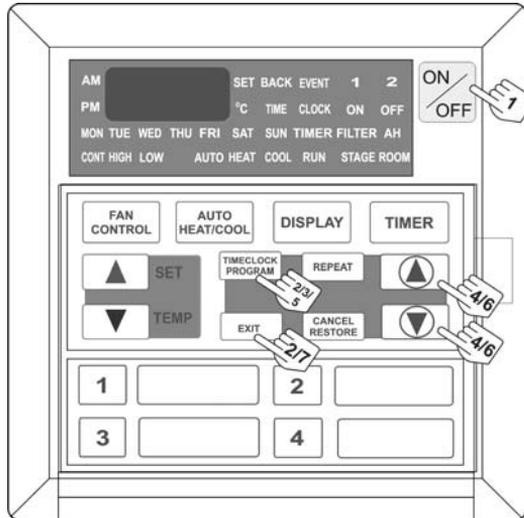


Notice

- TIMECLOCK has to be enabled for After Hours Run Timer to operate.
- Setting up of After Hour Timer is done via the Operating Functions Menu, see next page.
- If after Hours Run Timer overlaps into TIMECLOCK start time, the system will start, but AH light will be OFF.

- | | |
|----------|---|
| 1 | To start the air conditioner for a preset time outside of normal operating hours press the ON/OFF button.
AH and TIMER light will be illuminated. |
| 2 | Press the ON/OFF button again to turn OFF air conditioner before the completion of After Hours Run Timer duration
AH and TIMER light will turn off. |

Enabling and Disabling After Hours via Operation functions Menu



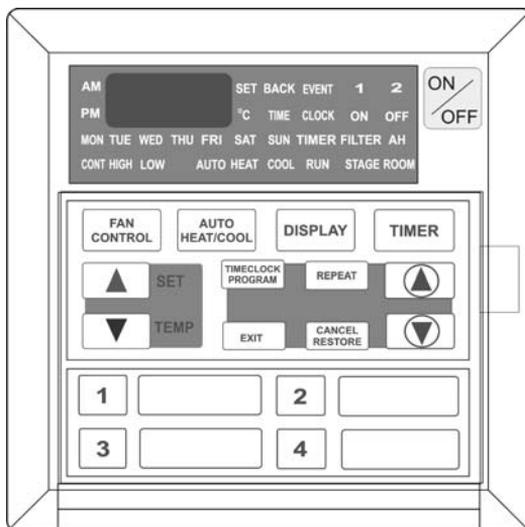
1	Ensure air conditioner is turned off.
2	Press and hold EXIT button. Press TIMECLOCK / PROGRAM button and release them altogether Function 1 is displayed Auto Heat Cool flashing.
3	Press TIMECLOCK / PROGRAM button repeatedly until the AH Timer is illuminated. ON or OFF will be flashing.
4	Make your selection by pressing the UP or DOWN TIMECLOCK PROGRAM arrow buttons.
5	Once you have made your selection press TIMECLOCK/ PROGRAM button This make the after hours function available to use.

AH Duration

The AH hours duration is the next function if you have correctly enabled the After Hours Function.

6	Set duration time using the UP and DOWN arrows.
7	Once you have set duration press EXIT button to exit menu.

Timeclock Operation



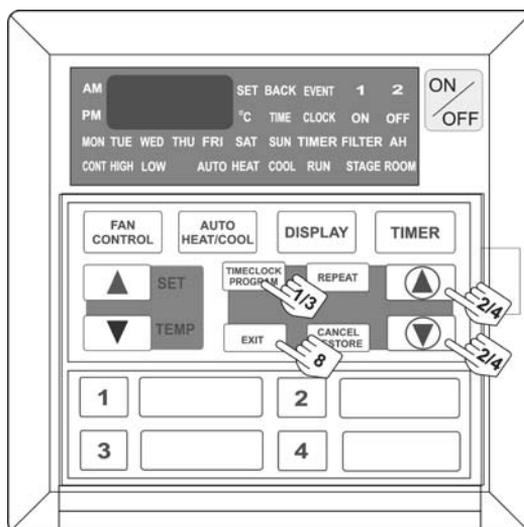
Notice

- The 7-Day TIMECLOCK feature allows you to set the air conditioner to turn ON and OFF at different times for each day of the week.
- Each day can have two programmed events.
- Each event has an ON and OFF time. Each event has an ON and OFF time.
- TIMECLOCK PROGRAM set up can only be done with air conditioner switched OFF.

Example of typical TIMECLOCK set up

		MON	TUE	WED	THU	FRI	SAT	SUN
EVENT 1	ON TIME	6:00am	6:00am	6:00am	6:00am	6:00am	7:00am	8:00am
	OFF TIME	10:00am	10:00am	10:00am	10:00am	10:00am	9:00am	12:00pm
EVENT 2	ON TIME	4:00pm	4:00pm	4:00pm	4:00pm	1:00pm	-:--	-:--
	OFF TIME	10:00pm	10:00pm	10:00pm	10:00pm	11:00pm	-:--	-:--

Setting the Time and Day



Notice

Ensure the air conditioning system is turned off and displaying time of day.

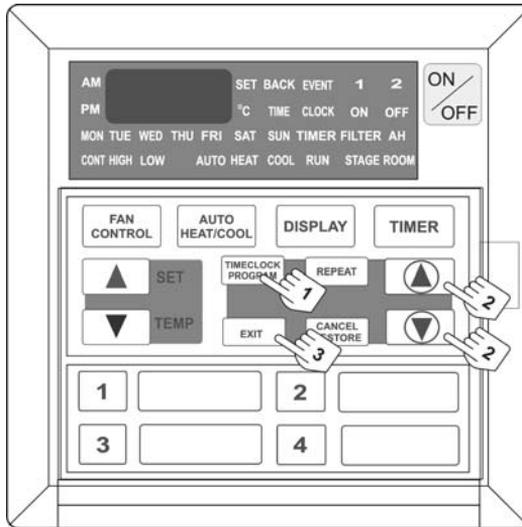
1	Press the TIMECLOCK PROGRAM button 3 times “SET” will be illuminated and the “HOUR” will start flashing on the display.
2	Adjust the “hours” by using the TIMECLOCK PROGRAM UP/DOWN arrow buttons.
3	Press the “TIMECLOCK PROGRAM” button. SET will be illuminated and the “Minutes” will be flashing on the display.
4	Adjust the “minute” by using the TIMECLOCK PROGRAM UP/DOWN arrow buttons.
5	Press the “TIMECLOCK PROGRAM” button. SET will be illuminated and the selected Day will be flashing
6	Set the “Day” using the TIMECLOCK PROGRAM UP/DOWN arrows.
7	Press the TIMECLOCK PROGRAM button
8	Press the EXIT button. The time and Day have been set.

Battery Backup

During a power failure, the clock retains the time and day via the backup battery inside the wall control.

7-Day Programmable Operation

Activating and De-activating the 7-Day Timeclock



Notice

Ensure the air conditioning system is turned off and displaying time of day.

Activating

- | | |
|---|---|
| 1 | Press the TIMECLOCK PROGRAM button twice.
SET and TIMECLOCK will illuminate and OFF indicator will flash. |
| 2 | Press the TIMECLOCK PROGRAM button UP/DOWN arrow until ON is flashing. |
| 3 | Press EXIT button
TIMECLOCK should now be illuminated. |

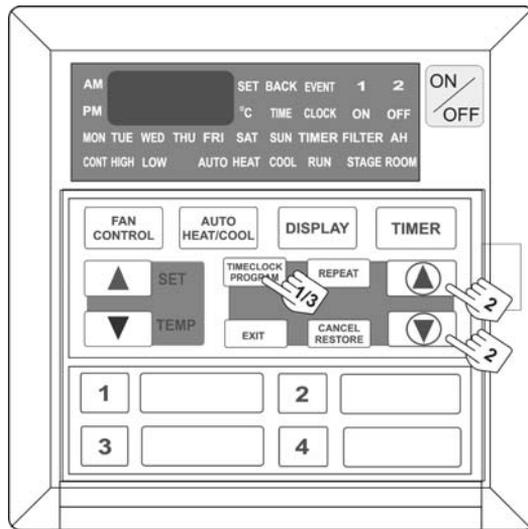
De-activating

- | | |
|---|---|
| 1 | Press the TIMECLOCK PROGRAM button twice.
SET and TIMECLOCK will illuminate and OFF indicator will flash. |
| 2 | Press the TIMECLOCK PROGRAM UP/DOWN arrows until OFF is flashing. |
| 3 | Press the EXIT button.
TIMECLOCK should now be off. |

Programming the Events

Notice

Ensure the air conditioning system is turned off and displaying time of day.



1	<p>Press the TIMECLOCK PROGRAM button repeatedly until EVENT, 1, ON and MON are illuminated You are now setting Monday, Event 1 ON time. The display shows the ON time.</p>
2	<p>Use the TIMECLOCK UP/DOWN arrow buttons to adjust time.</p>
3	<p>Press the TIMECLOCK PROGRAM button to move to the EVENT 1 OFF time. The display shows the OFF time.</p>
4	<p>Repeat step 2 above to set the EVENT 1 OFF time.</p>
5	<p>Press the TIMECLOCK PROGRAM button to move to next event. The event time is entered once the TIMECLOCK PROGRAM button has been pressed. If the EXIT button is pressed before moving to the next event, the time programmed will not be entered.</p>
6	<p>Repeat steps 2 to 5 above to program all the events required.</p>

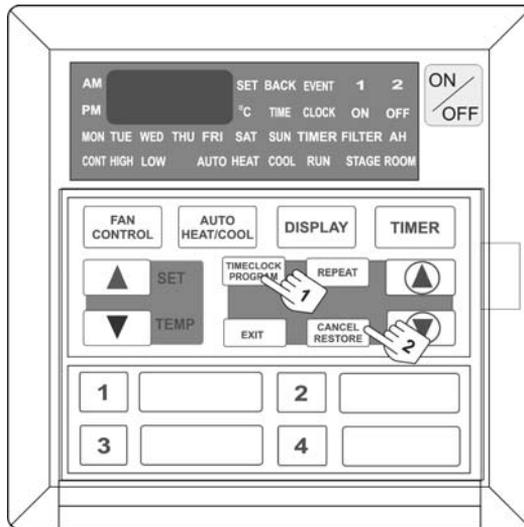
Re-Activate an Event

1	<p>Event ON times can be set up to 11:45PM of the current day.</p>
2	<p>Event ON times can be set up to 9:00AM the following day.</p>

Notice

If you program Event 1 past midnight, then Event 2 will be automatically cancelled.

Cancelling Individual Events



Notice

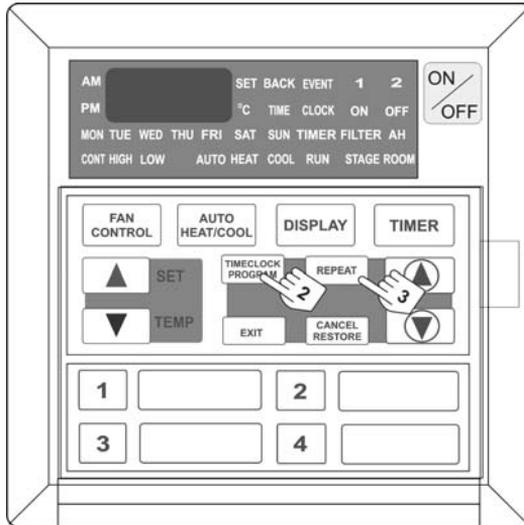
Ensure the air conditioning system is turned off and displaying time of day.

1	Press the TIMECLOCK PROGRAM button repeatedly until the ON time for the event to be cancelled is displayed.
2	Press the CANCEL/RESTORE button. -:-- will be displayed indicating the event is cancelled.
3	Repeat the above steps to cancel any desired event.
4	Refer to the 7-Day TIMECLOCK operation for programming sequence. See Page See page 17.

Re-activating Cancelled Events

1	Press the TIMECLOCK PROGRAM button repeatedly until the cancelled event is displayed. -:-- will be displayed indicating the event is canceled.
2	Press the CANCEL/RESTORE button.
3	Repeat the above steps to restore any previously cancelled event.

Repeating a Day's Events and Times

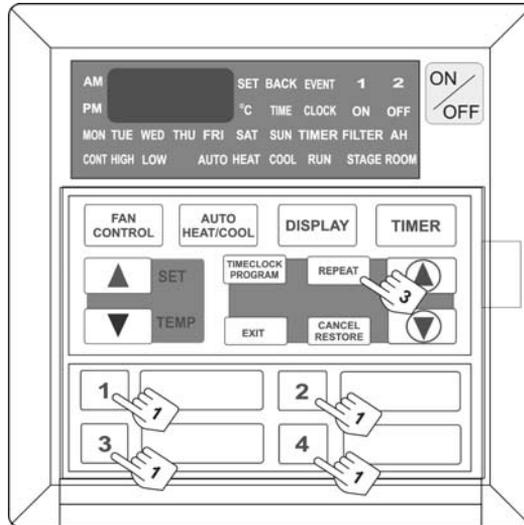


Notice

This feature allows you to automatically repeat any pre-programmed day's events and times, thus eliminating any need to re-enter the events and times.

1	Go to the day from which the events and times will be copied. Program the events and times as required. See Programming the Events, page 18.
2	Press the TIMECLOCK PROGRAM button until the day that the events and times to be copied is displayed. Set, EVENT, 1, TIMECLOCK and ON are illuminated.
3	Press the REPEAT button. The current day now has exactly the same events and times as the day programmed in step 1 above.
4	Repeat steps 2 to 3 above for any desired day.

Zone Controller Functions



Re-activating Cancelled Events

1 Press the zone button to turn zones ON and OFF

Zone light illuminated when the zone is On. (i.e. Open)
Zone light deactivated when the zone is Off (i.e. Closed)

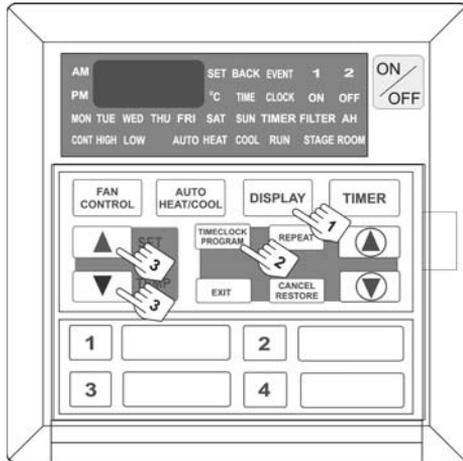
Notice

The controller is designed to have a minimum of one zone activated to prevent the air conditioning system operating with all zones closed. However ask your installer what is the minimum amount of zones you should leave on for your air conditioning set up. Write these suggestions on page 30 as a reference

Temperature Set Point Range Limit

Notice

The air conditioner has to be switched OFF to change Temperature Set Point Range Limit.



Notice

Default Upper and Lower Limits are:
 Lower Limit 16°C. Upper Limit 28°C. The minimum set point for the Lower limit is 10°C. The maximum set point for the Lower limit is 36°C.
 It is recommended not to adjust the Upper and Lower limits outside the default setting. Doing so may cause damage to your system and void warranty.
 You cannot adjust the Upper limit below the current set temperature.
 You cannot adjust the Lower limit above the current set temperature.

Setting the Lower Set Point Limit

1	Press the DISPLAY button until the Set Temp is displayed.
2	Press TIMECLOCK PROGRAM button, then the TIMECLOCK PROGRAM DOWN arrow. The current Lower Limit will be displayed for 3 seconds. Example L16 (16°C).
3	While the Lower Limit is displayed, use the Set Temp arrow buttons to adjust higher or lower.
4	After 3 sec the Lower Limit will be automatically accepted.

Setting the Upper Set Point Limit

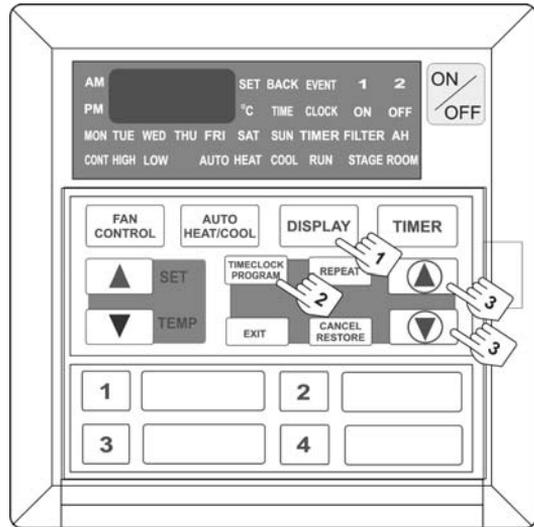
1	Press the DISPLAY button until the Set Temp is displayed.
2	Press TIMECLOCK PROGRAM button, then the TIMECLOCK PROGRAM UP arrow. The current Upper Limit will be displayed for 3 seconds. Example U28 (28°C).
3	While the Upper Limit is displayed, use the Set Temp arrow buttons to adjust higher or lower.
4	After 3 sec the Upper Limit will be automatically accepted.

Temperature Set Back

Temperature setback is useful in unoccupied times or during the night to maintain a maximum or minimum room temperature.

Notice

The air conditioner has to be switched OFF to setup temperature Setback.



1	Press the DISPLAY button until the Room Temperature is displayed. ROOM light is illuminated.
2	Press TIMECLOCK PROGRAM button SET BACK light illuminated, OFF or ON light flashing
3	Press the TIMECLOCK PROGRAM UP/DOWN arrow buttons to select setback operating mode. <ul style="list-style-type: none"> • COOL model only: COOL and ON lights flashing. • HEAT mode only; HEAT and ON lights flashing. • COOL and HEAT mode: COOL, HEAT and ON lights flashing. • SETBACK off: OFF light only flashing.
4	Press TIMECLOCK PROGRAM button to accept selection.
5	Press SET TEMP UP/DOWN arrow buttons to select COOLING setback temperature. Current cooling setback temperature displayed, COOL and ON lights flashing.
6	Press TIMECLOCK PROGRAM button to accept selection.
7	Press SET TEMP UP/DOWN arrow buttons to select HEATING setback temperature. Current heating setback temperature displayed, COOL and ON lights flashing.
8	Press TIMECLOCK PROGRAM button to accept selection and exit menu Set back light will be illuminated to tell you set back is now active.

Notice

COOL mode: Operates in cooling only. Cooling setback range 26 to 36°C.
HEAT mode: Operates in heating only. Heating setback range 8 to 20°C.
COOL and HEAT mode: Operates in cooling and heating.

Tips for Cold Winter

Utilising Setback Mode

1	Setback Off E.g. Normally you turn your air conditioner off when going to bed. Overnight while you sleep the temperature can get to as low as 5 degrees or colder In the morning you turn your air conditioner back on and it takes a long time to achieve a comfortable temperature (e.g. 22.5°C). <u>Sound familiar?</u>
2	Setback On E.g. Again you turn your air conditioner off when going to bed. Overnight while you sleep your preset setback will maintain your homes chosen minimum temperature (e.g. 16°C). Therefore when you wake up and turn the air back on the temperature is already at reasonable temperature and has a big head start in achieving your chosen temperature (e.g. 22.5°C).

Tips for Hot Summers

Utilising Setback Mode

1	Setback Off E.g. Normally you turn your air conditioner off when going to bed. Overnight while you sleep the temperature in your home can get quit hot (e.g. 30°C). In the morning you turn your air conditioner back on and it takes a long time to achieve a comfortable temperature (e.g. 22.5°C). <u>Sound familiar?</u>
2	Setback On E.g. Again you turn your air conditioner off when going to bed. Overnight while you sleep your preset setback will maintain your homes chosen maximum temperature (e.g. 26°C). Therefore when you wake up and turn the air back on the temperature is already at reasonable temperature and has a big head start in achieving your chosen temperature (e.g. 22.5°C).

Operating Tips for Extreme Weather

Winter

1 Always test run your air conditioner a few weeks before the start of summer and make sure it's cooling sufficiently.

If the air conditioner needs servicing, it's advised you have this done before the summer season arrives.

2 A COLD day is forecast for tomorrow, what should you do?

You can leave air conditioner running overnight, but lower the set point 2-4°C from your normal setting to help save electricity. This will prevent the house/office from becoming too cold overnight and thus enabling the air conditioner to warm the house/office quicker when you raise the temperature set point back to your usual setting.

OR

Start the air conditioner a couple of hours earlier than you normally would in the morning.

If outside conditions are very cold (approx. 7°C or lower) supplementary heating may be used such as electric or gas heaters to complement & speed the heating up.

Keep all curtains and windows closed. Also stop drafts coming in from your front & back doors.

If you have zones, turn off any you are not using and close doors to these areas, as this will give you more heating capacity in the areas you need.

Ask your installer on the minimum zones you should use on your system.

Notice

Always allow the necessary amount of fresh air into rooms.

Operating Tips for Extreme Weather

Summer

- | | |
|----------|---|
| 1 | Always test run your air conditioner a few weeks before the start of summer and make sure it's cooling sufficiently.
If the air conditioner needs servicing, it's advised you have this done before the summer season arrives. |
| 2 | A HOT day is forecast for tomorrow, what should you do?
Always start the air conditioner early in the morning and keep the house/office cool. If you try and start the air conditioner in the afternoon when the house/office is already very hot, it may take a while to cool down.

Keep all curtains and windows closed. Also stop drafts coming in from your front & back doors.

If you have zones, turn off any you are not using and close doors to these areas, this will give you more cooling capacity in the areas you need.

Ask your installer on the minimum zones you should use on your system. |

Notice

Always allow the necessary amount of fresh air into rooms.

Energy Conservation Tips

- 1** For the most efficient operation, keep the windows and doors closed including unused areas where possible. They not only help to insulate against heat and cold, they also reduce dust, pollen and noise.

Occasionally allow fresh air into rooms and offices that are closed off.

Should you wish to leave your air conditioner on over night during the winter. Set your thermostat down by 2°C to 4°C when going to bed and reset to your normal setting upon arising, as there is no reason to pay for extra electricity when you are under the blankets. This can also apply during the summer nights and therefore raise the temperature by 2°C to 4°C.

On days when extreme conditions of High or Low temperatures prevail and the home is unoccupied, it can be practical to leave the air conditioner ON. However to reduce energy costs, set the temperature up 2°C to 4°C (Cool Mode) for summer and down 2°C to 4 °C (Heat Mode) for winter and reset to your normal setting upon returning. This will provide a more comfortable situation and reduce the high heat load as the Air Conditioner not only has to cool or heat the air, it also has to cool and heat the furniture, walls, floors and ceilings.

The normal setting recommended is 22°C for both summer and winter.

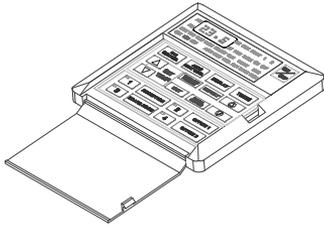
By raising the set point by 1°C in summer or lowering the set point by 1°C in winter can save approx. 10% on electricity costs.

Zoning

- 2** If your air conditioner has zones fitted, always turn off the zones you aren't using as this will save energy by the air conditioner not having to operate as long. And also, closed the doors to any unzoned areas.

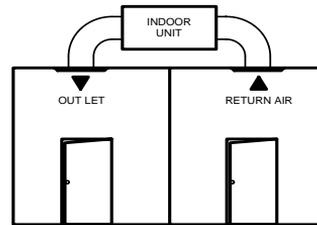
Maintenance

Wall Controller



Wipe the controller with a dry cloth.
Do not use water.

Outlets and Return Air



Dust off the outlets and return air, use a household duster. Do this regularly to prevent any build up of dust or dirt.

Air Filter Cleaning

Clean every 4 weeks or when the filter light is displayed on wall control.

1. Open the inlet grille.

Caution, dust may fall from return air grille.

2. Remove the filter by sliding it out from the grille.

3. Clean the filter

Using a vacuum cleaner to remove the dust or wash the filter with water. Be gentle when cleaning the filter to avoid tearing the filter material.

4. Replace filter.

Notice

- When the filter light is illuminated, check the air filter and clean if necessary and press the ON/OFF button to extinguish filter light.
- Always check with your installer for the proper care and maintenance of the filter system.

1. Do not obstruct airflow.



2. Keep grass or plants away from the unit. This will ensure your air conditioner operates efficiently.

Trouble Shooting

CONDITION	CAUSES OR CHECK POINTS
The system does not start.	<ul style="list-style-type: none"> • Check that 5 minutes has passed from turn on time, as the system has inbuilt safety timers. • Check thermostat settings are correct. • Check the thermostat “set-point” is set low enough for cooling or high enough for heating.
Air does not flow. (Indoor Unit)	<ul style="list-style-type: none"> • Check Zones are switched on. (where fitted) • During heating operation, air does not flow out for approx. 15 seconds after start up, this prevents cold drafts. • During the defrost of the outdoor unit in heating operation, the indoor fan will not operate for several minutes, this is to prevent cold air being blown into rooms.
Cooling/Heating is not sufficient.	<ul style="list-style-type: none"> • The cooling/heating function may not work effectively when the “return air filter” is clogged with dust and dirt. • Make sure the air inlet and air outlet on the outdoor unit are not blocked. • The outside temperature is above or below the design conditions.
Steam from outdoor unit.	<ul style="list-style-type: none"> • It is caused by the defrosting of the outdoor unit in heating operation in cold conditions.
Water from outdoor unit.	<ul style="list-style-type: none"> • This is normal during heating operation, it is due to water forming on the heat exchanger.
Occuring of noises	<ul style="list-style-type: none"> • When heating or cooling is started or stopped, a swishing or gurgling noise may be heard. This noise is generated by the refrigerant flowing between the outdoor and indoor units. • A whooshing noise may be heard from the outdoor unit during operation. This noise is generated when the refrigerant changes direction in the defrost operation. • On start up, the outdoor unit may be louder than normal for a few seconds whilst the compressor reaches the designated speed and operating pressure. • During defrost operation the compressor may generate more noise than normal.
Fault Codes	<ul style="list-style-type: none"> • When E-2 is displayed on the wall controller, take note of the digits after E and contact your installer.

Before contacting your installer, please have your air conditioners Model No. and Serial No. with you. (See page 2)

Actron Engineering Pty Ltd

ABN 34 002 767 240

HEAD OFFICE SYDNEY AUSTRALIA

Printed in Australia
Part No. 0500-012
Version: 3
1105