

AIR CONDITIONER ULTIMA ZONE CONTROL

Operating Instructions

Master Controller LM7-D



Ultima Zone Controller AM-ZC



Please Read This Manual

Congratulations on your purchase of an ActronAir air conditioning system. This unit has been designed and manufactured with the highest quality standard in mind.

Please read this manual carefully and keep it for future reference.

GENERAL INFORMATION

YOUR ACTRONAIR ESP ULTIMA SYSTEM IS A STATE OF THE ART PRODUCT with advanced Microprocessor Control that automatically controls and regulates conditioned air in each zone to provide year-round climate control and comfort.

INSIDE THIS MANUAL You will find instructions for Zone Controller used with ActronAir ESP Ultima system. Functions of the Master Controller, LM7-D and LM24 in conjunction with ESP Ultima operation, are also explained.

NOTE: Basic and detailed functions of the Master Controller, LM7-D and LM24, are explained in the operation manual (0500-121) supplied with your A/C unit.

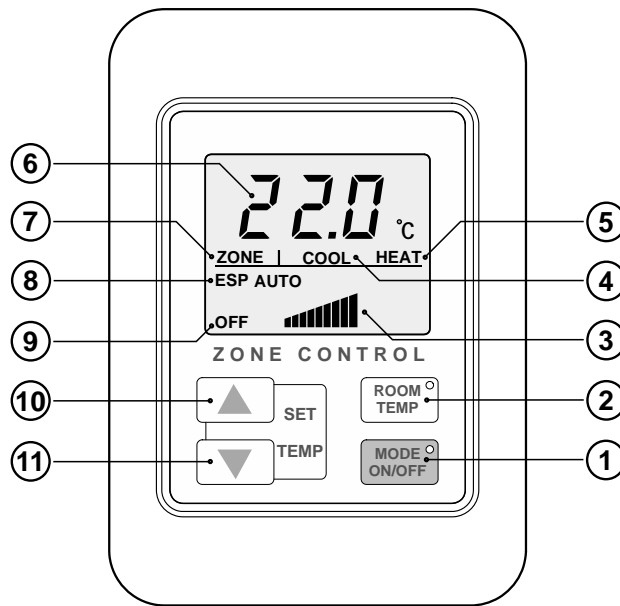
ACTRONAIR ESP ULTIMA SYSTEM is a highly advanced and efficient VAV system that lets you control the temperature of each zone. It is also used in conjunction with ECM (Electronically Commutated Motor) Indoor fan and ActronAir ESP digital compressor technology for maximum energy savings and comfort.

IMPORTANT To ensure efficient and proper operation of your equipment, read and understand all instructions contained in this manual and the Master Controller Manual. Failure to do so may result in damage of equipment and warranty may be void.

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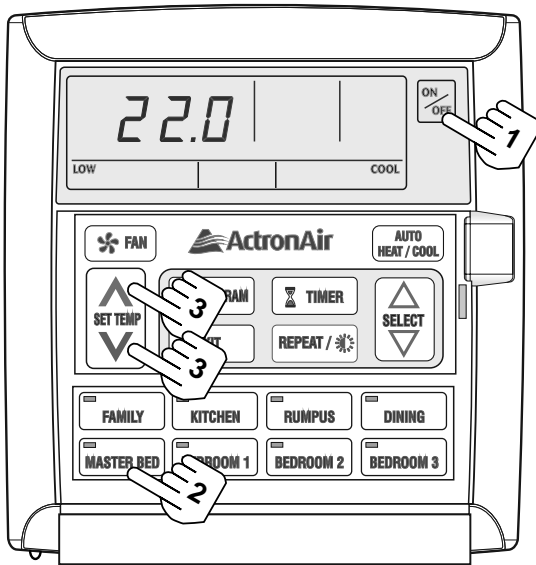
ZONE CONTROLLER FUNCTIONS



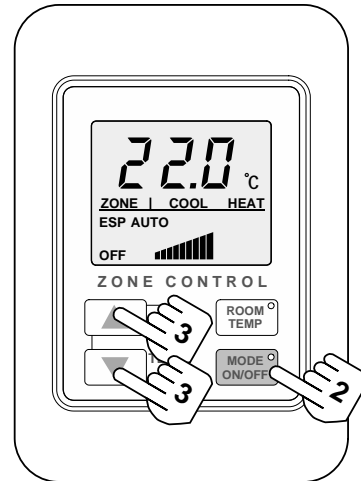
Zone Controller

- ① **Mode ON/OFF Button**
Turn the zone ON or Off.
- ② **Room Temperature Button**
View actual room temperature.
- ③ **Damper Position Indicator**
Indicates the position of of zones air damper. (shown fully open damper)
- ④ **COOL Indicator**
Illuminates when zone is receiving cooling.
- ⑤ **HEAT Indicator**
Illuminates when zone is receiving heating.
- ⑥ **Temperature Set Point Display**
- ⑦ **Zone Indicator**
- ⑧ **ESP Auto Indicator**
Illuminates when zone controller is modulating the airflow.
- ⑨ **OFF Indicator**
Illuminates when zone is off and damper is fully closed.
- ⑩ **Set Temperature UP Button**
Raises the set point for warmer temperature.
- ⑪ **Set Temperature DOWN Button**
Lowers the set point for cooler temperature.

TURNING ZONE CONTROLLER ON



Master Wall Controller



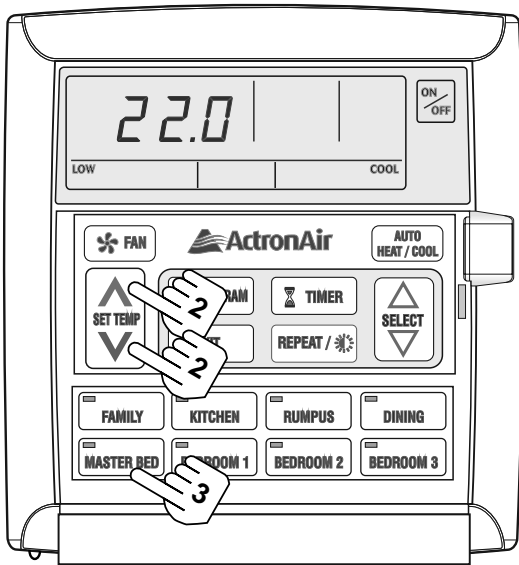
Zone Controller

1	<p>Turn the system ON by pressing the button on Master Controller LM7-D or LM24.</p>
2	<p>To turn the zone ON, press the button on Zone Controller. Alternatively, press the designated zone on the Master Wall Controller.</p> <p>Zone Controller display will show the SET TEMPERATURE, ZONE and ESP AUTO.</p>
3	<p>Set the desired temperature by pressing either the SET TEMP UP / or DOWN / arrow key. *</p> <ul style="list-style-type: none"> • For warmer room temperature, press the UP arrow key. • For cooler room temperature, press the DOWN arrow key.

Notes

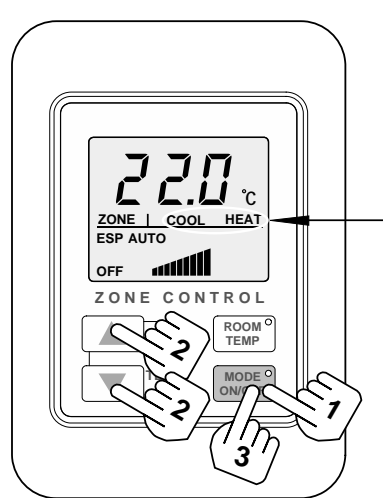
- * Zone Controller temperature setting can only be adjusted 2°C below or above the Master Controller set point temperature. This is a factory set limit, which is recommended in order to maintain system accuracy and maximize efficiency. Should this require changing, contact ActronAir Technical support on freecall number :
1800 119 229
- Master Controller shown above is LM7-D, same procedure applies with LM24 model.

ESP AUTO MODE



Master Wall Controller

Indications of **COOL** or **HEAT** will show zone conditioning. (When zone damper is providing warm or cold air to your zone).



Zone Controller

- 1 Press the **MODE ON/OFF** button on until **ESP AUTO** appears on the display.
- 2 Set the desired temperature by pressing either the **SET TEMP UP ▲/▲** or **DOWN ▼/▼** arrow key. *
 - For warmer room temperature, press the UP arrow key.
 - For cooler room temperature, press the DOWN arrow key.

Turning Off

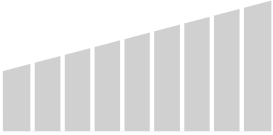
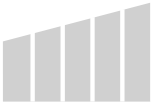

- 3 Press the **MODE ON/OFF** button to turn off the zone. Alternatively, press the designated zone button on the Master Controller.

When the designated zone LED in the Master Controller turns off, the zone is off.

Notes

- In Zone Control ESP AUTO mode, the controller will adjust the position of zone damper automatically in order to meet the desired temperature.
- Heating mode will be displayed when the zone starts to heat the room.
- Cooling mode will be displayed when the zone starts to heat the room.

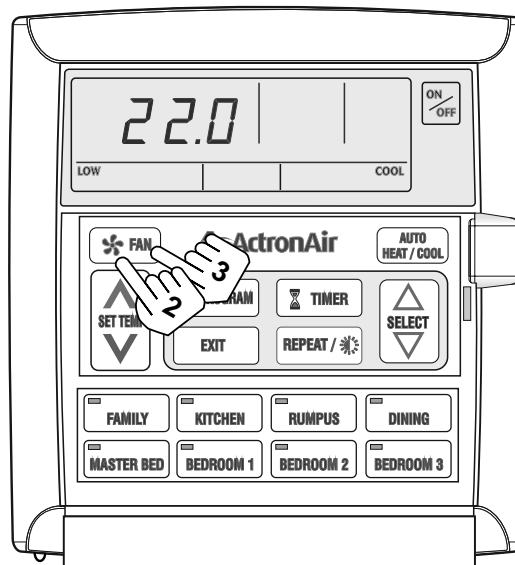
ZONE DAMPER BLADE INDICATOR

DISPLAY	STATUS
	<p>FULLY OPEN DAMPER BLADE</p> <p>Allows full airflow through in order to meet your required conditions.</p>
	<p>PARTIALLY CLOSED DAMPER BLADE</p> <p>Regulating airflow and temperature to meet set conditions.</p>
	<p>PARTIALLY OPEN DAMPER BLADE</p> <p>Regulating airflow and temperature to meet set conditions.</p>
	<p>NO DAMPER BLADE INDICATOR</p> <ul style="list-style-type: none">• Room is satisfied with temperature.• Zone is turned off.• Zone is waiting on HEAT / COOL mode change.



Note

When in ESP AUTO, damper blade indicator will automatically adjust itself to regulate the correct amount of airflow (HEAT or COOL) in order to maintain the desired setpoint temperature.

FAN ONLY MODE



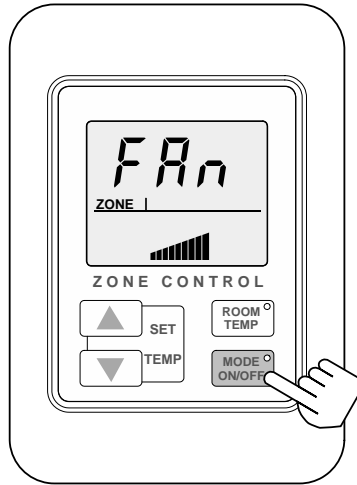
Master Wall Controller

1	Ensure your air conditioner is turned off.
2	Press the  button. The current fan speed setting will appear and the display backlight will turn on (if it is off).
3	Press the  button again to select HIGH, MED, LOW fan speed.
4	All open zones will circulate air throughout your home.
5	If you wish to shut any particular zone in this mode, simply turn off zone by pressing the designated zone button. Zone LED will go off.

Notes

- This mode is commonly used to circulate airflow without Cooling / Heating throughout your home.
- Quite often used on mild days to circulate fresh air through the home. Simply open a few windows and let the FAN ONLY MODE circulate fresh air through your home.


FAN ONLY MODE




Zone Controller

FAN MODE

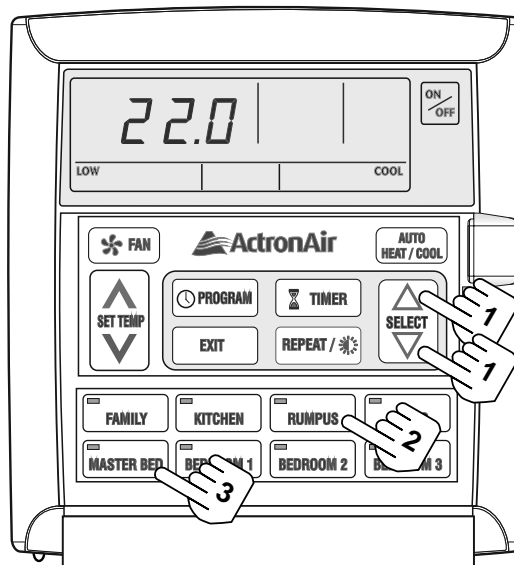
FAN will be displayed on zone control display when the Master Wall Controller is set to circulation operation. During this period, zone damper will be in fully open position for maximum air circulation.

Press the  button to turn off the zone damper.

If you do not want the unit to circulate airflow in your room in this mode, simply press the  button in your zone controller or turn your zone OFF at the Master Wall Controller

ZONE TEMPERATURE DISPLAY

TO CHECK TEMPERATURE AT MASTER WALL CONTROLLER




Average Room Temperature Display

- 1 Press any of the  buttons and the average room temperature will be displayed for 3 seconds.

“INSIDE,” “°C” and “.” will be flashing. The temperature displayed is the average of all activated zone sensors.

Checking Individual Zone Temperatures

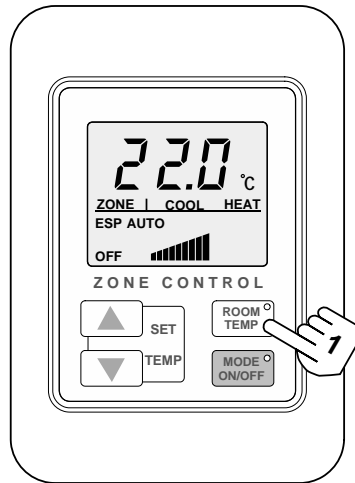
- 1 Press any of the  buttons.
- 2 While “INSIDE,” “°C” and “.” are flashing, press the zone to be checked.
 - “INSIDE,” and “°C” will turn off. The selected zone LED and “.” flashes.
 - During this time, the selected zone temperature is displayed.
- 3 To check another zone, simply press the zone button while the previous zone LED and “.” are flashing.

Notes

Room temperature displayed can be the temperature at a zone controller or at a remote sensor or the average of both depending on your installation set up.


ZONE TEMPERATURE DISPLAY

TO CHECK TEMPERATURE AT ZONE CONTROLLER




1 Press the button.

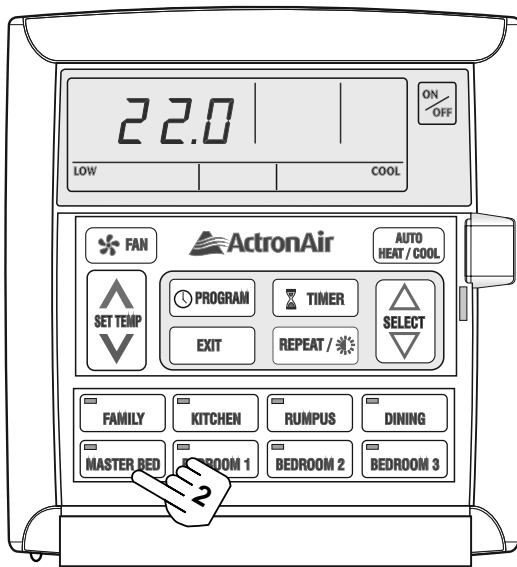
Actual room/zone temperature will be displayed for several seconds then display will return to setpoint temperature.

During this period, the blue LED on the  button will flash indicating the room temperature is shown on the display.

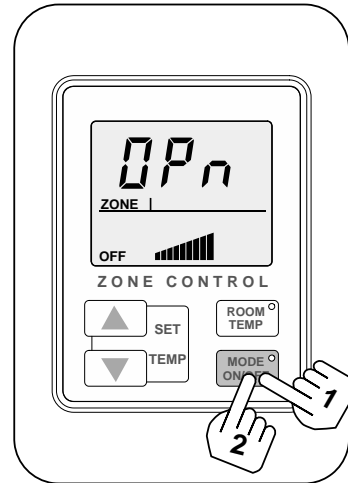
Notes

- To display the room/zone temperature for 45 minutes, press and hold  button for 5 seconds.
- Press any button to exit.
- The room/zone temperature display can be the temperature at the zone controller or at a remote sensor or the average of both depending on your installation set up.

ZONE OPEN MODE



Master Wall Controller



Zone Controller

- 1 Press the  button twice in quick succession until **OPn** appears on the display.

OPn indicates that the Zone Damper blade is in maximum open position.

Turning Off Zone

- 2 Press the  button to turn off the zone. Alternatively, press the designated zone button in the master wall controller.

Notes

- It is not possible to control or adjust the temperature in this mode.
- This zone temperature will now depend on the systems operating mode (HEAT or COOL).
- This mode has no control on room temperature, your sensor is ignored in this mode.
- A zone in OPn mode is like having a non-temperature controlled ON/OFF zone damper.
- Zone 1 cannot be put in OPn mode.

TROUBLE SHOOTING

Condition	Causes or Check Points
<p>The system does not start.</p>	<ul style="list-style-type: none"> • Check that 5 minutes has passed from the time you turned the system on, as the system has in-built safety timers. • Check thermostat settings are correct. • Check the thermostat “set-point” is set low enough for cooling or high enough for heating. • Check that the Master Controller is set to correct mode for COOL / AUTO / HEAT.
<p>Air does not flow. (Indoor Unit)</p>	<ul style="list-style-type: none"> • Check if the unit is set in the correct mode COOL / AUTO / HEAT. • Check your Zone Controller is turned on. If using zone sensor, ensure your zone is turned on at the Master Controller. • During defrost cycle of the outdoor unit (in HEAT mode), the indoor fan will not operate. Defrost cycle is indicated when “HEAT” is flashing on the Master Controller display.
<p>OFF is displayed on my zone controller and I cannot turn the zone On.</p>	<ul style="list-style-type: none"> • This means the Master Controller is turned off. First turn on your air conditioner at the Master Controller. You will now be able to turn on your Zone Controller.

**For any assistance with your ESP Ultima System,
do not hesitate to contact our Customer Care Team for
technical support on freecall number:**

1800 119 229

FREQUENTLY ASKED QUESTIONS

Q. I cannot adjust my set point on my Zone Controller any more than 2° higher or lower than the Master Controller.

A. 2° is the default setting for master temperature offset. ActronAir recommend this 2° offset to optimise temperature control and maximize energy efficiency. Moving this setting +/- 2° will result in temperature inaccuracy. Contact ActronAir technical support:
Tel. No. 1800 119 229.

Q. Cooling and Heating seems to take a long time to achieve temperature in ESP fan mode. Am I using the correct settings?

A. ESP fan mode really comes into it's own when minimal zones are used. For quicker and more responsive Cooling and Heating, when using more than minimal zones, select HIGH or CONT HIGH fan speed on Master Controller. This will boost heating and cooling and is best optimized when you want to condition more than the minimal zone set up.

Q. Cooling and Heating is not sufficient in my zone.

A. Air balancing is essential part of system commissioning in ESP Ultima system. The duct design may be prohibiting the correct amount of airflow reaching your area. Please contact your installer to ensure air balancing has been carried out.

Q. There is substantial air noise coming from my outlet.

A. If the outlet gets too noisy when the unit or zone is first turned on, the system maybe over supplying airflow to your area. Ensure ESP fan mode is selected when minimal zones are used.

Q. There are dashes across my control display.

A. Make sure you have not had a power interruption. If this is still present on the display after 20 seconds, please contact your installer. Incorrect wiring or a broken circuit could also cause these symptoms.

FAULT CODES:

When **E?** is displayed in the Master Controller or Zone Controller, take note of the digits after E and contact your installer.

E3 - System has detected less than 2 sensors (Ultima requires at least 2 sensors in circuit) or, a remote sensor is short circuit.

E5 - No Communication. The system is constantly relaying information back and forth. This indicates the communication is not happening. Contact your installer to check your wiring and cable's integrity.

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ActronAir[®]

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1800 119 229

actronair.com.au

Actron Engineering Pty Ltd

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