

# WALL CONTROLLER

## Operation Manual



## Model Numbers

- LM7-2W (White)
- LM7-2G (Grey)
- LM24-2W (White)
- LM24-2G (Grey)

### **IMPORTANT NOTE:**

Please read this manual carefully before installing or operating your air conditioning unit.

*That's better. That's Actron.*



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## 01. General Informations

**CONGRATULATIONS!** The LM7-2(W/G) / LM24-2(W/G) Control Interface is manufactured from the highest quality materials and designed to ensure years of satisfactory operation.

**IN THIS MANUAL,** You will find instructions on how to program and utilise the many advanced features this control interface has to offer. Please take time to familiarise yourself with all these features, apply their functions to suit your optimum comfort requirement and achieve energy cost savings at the same time. Thoroughly read this manual in order to ensure correct utilisation of your ActronAir air conditioner.

**IMPORTANT NOTICE,** ActronAir base the development of its air conditioning products on more than 30 years of experience in HVAC, sound and continuous investments in technological innovations and product improvements, advancement in manufacturing processes and quality control through 100% functional product testing. However, ActronAir cannot guarantee that all the aspects of the product and the software included with the product respond to the requirements of final application, despite the product being developed according to state of the art technology. The customer, both end user/specifier and installer, assume all liability and risks relating to the configuration of the product in order to reach the expected results in relation to the specific design and system installation. ActronAir, based on specific agreements, may be consulted for the positive commissioning, installation and application of the unit, however in no case does ActronAir accept liability for the correct operation of the final equipment / system.

Your ActronAir air conditioning unit is one of the most advanced and innovative products in the market. Its operation is specified in the technical documentation supplied with the product or which can be downloaded from our website: [www.actronair.com.au](http://www.actronair.com.au). Your air conditioner requires set-up/configuration/programming in order to be able to operate in the best possible way to suit your requirement. Failure to complete such operations, may result in malfunction and/or damage to the unit, for which ActronAir accepts no liability.

Installation, commissioning and other technical services must only be carried out by a qualified technician. Ensure that the unit installation complies with all relevant council regulations and building code standards. All electrical wiring must be in accordance with current electrical authority regulations and all wiring connections to be as per electrical diagram provided. Always use appropriate PPE for your safety and protection. Make sure that any safety guards and covers are always firmly secured and not damaged. WH&S rules and regulations must be observed at all times and will take precedence during installation process and operation of the unit.

In addition, the following instructions must be observed:

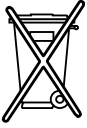
- Prevent the electrical components and electronic circuits from getting wet.
- Do not install the controlling devices in hot environments as extreme temperatures may damage the electronic equipment.
- Do not attempt to open the controller and other electronic devices in any way other than described in this manual.
- Do not drop, shake or hit the devices, which can cause irreparable damage to its internal circuits and mechanisms.
- Do not use corrosive chemicals, solvents or other aggressive detergents to clean the unit and the control interface.
- Do not use the unit for applications other than those specified in the technical manual.
- Do not install the unit in environment with highly flammable, combustible and/or explosive articles and materials.
- This control interface must be installed in a location that complies with the temperature and humidity limits specified in this manual.

ActronAir is constantly seeking ways to improve the design of its products, therefore specifications are subject to change without prior notice. Please check with ActronAir Service Department on toll free number: **1800 119 229**.

### SPECIFICATIONS:

- Voltage: 12VDC
- Data: RS485 4 Core (2 Pair) Twisted Pair 7/0.20 (AWG24) Shielded Data Cable
- Storage conditions: -20 to 70°C, < 90% RH non-condensing
- Operating conditions: -10 to 60°C, < 90% RH non-condensing

## **02. Waste Electrical and Electronic Equipment Disposal Guidelines**



1. Do not dispose off the waste electrical and electronic equipment with local council waste. These must be disposed off through the council designated hazardous waste collection centre.
2. The equipment may contain hazardous substances, improper or incorrect disposal may have a negative effect on human health and on the environment.

## **03. Maintenance**

1. Keep the control interface clean with the use of a soft dry cloth only. If a cleaning solution is needed, use a very mild soap solution to dampen the cloth. Do not spray or squirt any liquid onto your control interface.
2. Do not use solvent base cleaner, which can cause damage to the control interface.
3. When cleaning, be careful not to accidentally press any Buttons, TURN-OFF the unit to ensure that no adverse unit operation is initiated by accidentally pressing any Buttons.
4. Be careful not to press hard into the display screen, as it may get damaged.
5. Ensure that the temperature sensor is always clean and free of dust or dirt build-up to maintain sensor accuracy.
6. Do not pull apart or attempt to service the control interface, should you need service to the device, contact ActronAir Service Department on 1800 119 229.

## **04. Safety Precautions**

1. Read all instructions in this manual before operating the air conditioning unit. Failure to do so may result in damage to the unit and void your warranty.
2. Turn-Off the power supply to the unit and follow sound Lock Out and Tag Out procedures to ensure that power supply is not re-energised accidentally.
3. Beware of EC Motors with high power capacitors and which can have dangerous voltages at terminals for up to 5 min. after main power has been isolated. Wait at least 5 minutes after power isolation and test for high voltage before performing service work.
4. This control interface has power supplied from the indoor board controller via screwed terminals and 4 Core Twisted Pair Data cable. Ensure that this unit is not installed on voltages other than specified.
5. Installation and servicing must be carried out by a qualified technician.
6. Ensure that the unit installation complies with relevant council regulations and building code standards. All electrical wiring must be in accordance with current electrical authority regulations and all wiring should follow the electrical diagrams provided.
7. WH&S rules and regulations must be observed and will take precedence during installation process.
8. Only use this control interface with an ActronAir air conditioner as described in this operating manual.

## 05. Operational Precautions

**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.

**SUPERVISION OF CHILDREN AND INFIRM PERSONS:** This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely. Young children should be supervised to ensure that they do not play with the appliance.



**RETURN AIR FILTER:** The air conditioner must never be operated without a return air filter as this will cause a build up of dust and other contaminants 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.

## 06. 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 in front of the wall controller	
Installer	
Company Name	
Phone Number	
Technicians Name	

## 07. Features

<b>1</b>	<p><b>Auto-Restart After Power Failure</b> 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, if this option is selected.</p>
<b>2</b>	<p><b>Dual Wall Control Operation (Optional)</b> Up to two wall controllers can be installed on one system. This is particularly useful on two storey houses , where you can have one control upstairs and one control downstairs or having the second wall controller in the master bedroom for improved temperature control. See Dual Wall control Operation for more info on Page 20.</p>
<b>3</b>	<p><b>Room Temperature Display with One Touch</b> Press the  or  Buttons and the set temperature display will change to show the room temperature for 3 seconds. <b>Note:</b> When zones are fitted, the temperature displayed will depend on which sensor has been selected by the wall controller ( See Zone Controller Functions, Page 19 ).</p>
<b>4</b>	<p><b>Integrated Zoning</b> 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 and you only have the downstairs zone on, the zone control will select the downstairs sensor to control the temperature, thus ensuring perfect comfort in the area occupied.</p>
<b>5</b>	<p><b>Auto Defrost Function (Heating Mode)</b> At certain outdoor conditions (low temperature) there may be a build up of frost on the outdoor heat exchanger. This gradual build up of 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 <b>HEAT</b> indicator every 10 seconds.</p>
<b>6</b>	<p><b>Hot Start Function (Heating Mode)</b> 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 minimising cold drafts. The hot start feature also activates itself when the system finishes defrosting.</p>
<b>7</b>	<p><b>Filter Clean Light</b> The system monitors the accumulated run time of the air conditioner and after a preset number of hours have expired, the <b>FILTER</b> indicator will flash, indicating it's time to check if filter requires cleaning.</p>
<b>8</b>	<p><b>Self Diagnosis</b> In the unlikely event that a fault develops with the air conditioner the microprocessor will detect a fault and display the relevant fault code on the wall controller. See Troubleshooting on Page 23.</p>

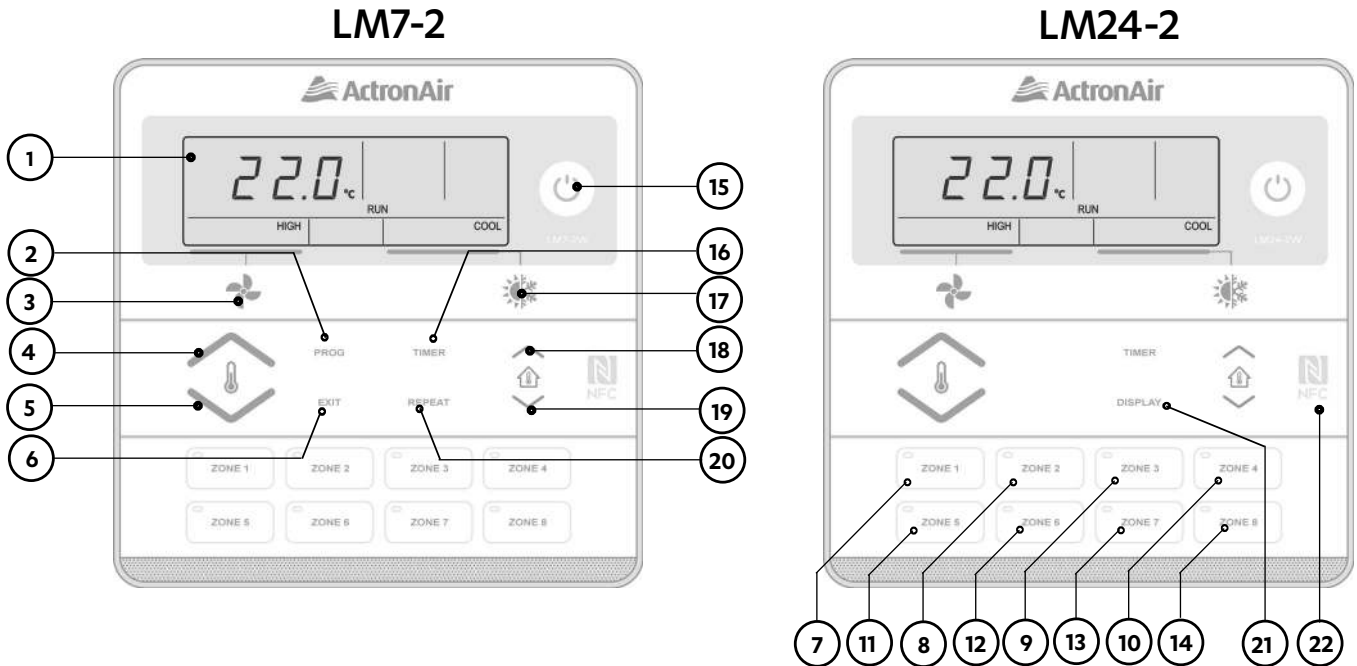
### NOTE

Some applications may require cleaning of the filter at more regular intervals.

## 08. Basic operation

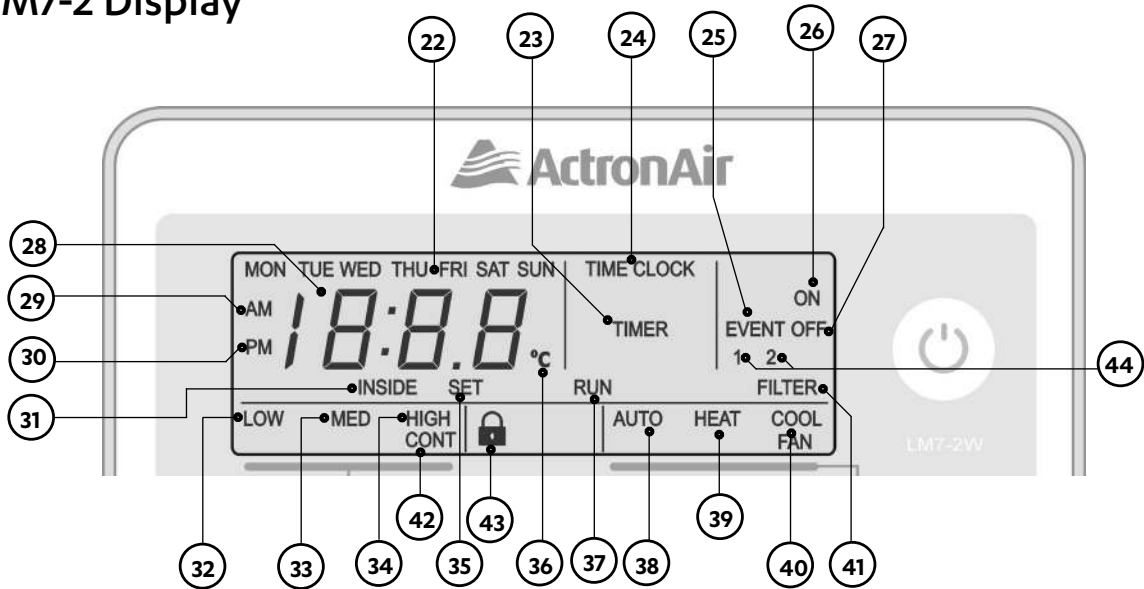
### 08.01. Wall Controller Functions

LM7-2 and LM24-2 have the same Buttons and functions, except for items ②, ⑥ and ⑳ which are not available to LM24-2.

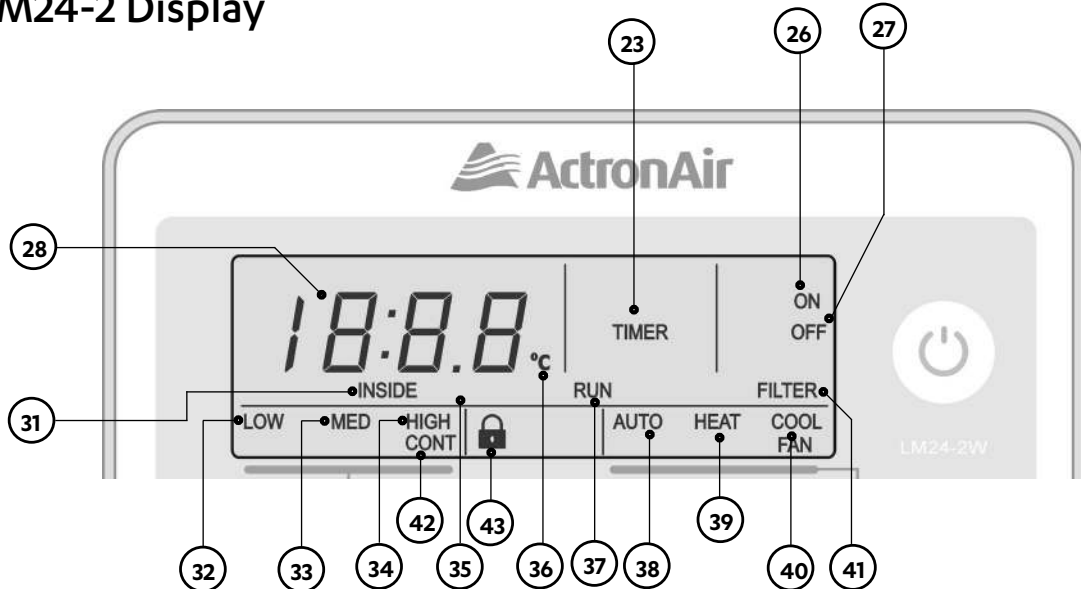


- ① **LCD Display**  
Displays the setting and operation conditions (See next page for details).
- ② **Program Button** (Not used on LM24-2)  
For setting the clock and for entering the 7-Day time clock menu.
- ③ **Fan Control Button**  
Changes fan speed (high, medium and low). Selects continuous and non continuous fan operation. Also selects FAN only mode.
- ④ **Temperature-Up Setting Button**  
Increases room temperature setting.
- ⑤ **Temperature-Down Setting Button**  
Decreases room temperature setting.
- ⑥ **Exit Button** (Not used on LM24-2)  
Quick exit from time clock programming menu.
- ⑦ **Zone 1 Button with On/Off Indicator**
- ⑧ **Zone 2 Button with On/Off Indicator**
- ⑨ **Zone 3 Button with On/Off Indicator**
- ⑩ **Zone 4 Button with On/Off Indicator**
- ⑪ **Zone 5 Button with On/Off Indicator**
- ⑫ **Zone 6 Button with On/Off Indicator**
- ⑬ **Zone 7 Button with On/Off Indicator**
- ⑭ **Zone 8 Button with On/Off Indicator**
- ⑮ **On/Off Button**
- ⑯ **Timer Operation Button**  
Activates timer function.
- ⑰ **Operation Mode Button**  
Selects cooling, heating and Auto mode.
- ⑱ **Select/Clock-Up Setting and Room Temp Display Button**
- ⑲ **Select/Clock-Down Setting and Room Temp Display Button**
- ⑳ **Repeat / Backlight Button** (LM7-2 only)
  - Repeats the previous day settings to the current day.
  - Adjust and Turn On/Off Backlight.
- ㉑ **Display / Backlight Button** (LM24-2 only)  
Adjust and Turn On/Off Backlight.
- ㉒ **NFC Tag**

### LM7-2 Display



### LM24-2 Display



**NOTE**

Wall Controllers LM7-2 and LM24-2 are available in 2 colours.

- LM7-2W (White) and LM7-2G (Grey)
- LM24-2G (White) and LM24-2G (Grey)








- ②② **Day Indicator** (LM7-2 only)  
 Display the day of the week when the time is shown and which day is selected for programming.
- ②③ **Time Indicator**  
 Indicates timer is in operation.
- ②④ **Time Clock Indicator** (LM7-2 only)
- ②⑤ **Event Indicator**  
 Indicates which event of the day Time clock is being set.
- ②⑥ **On Indicator**
- ②⑦ **Off Indicator**
- ②⑧ **Timer CLock and Room/Setpoint Temperature Indicator** (LM7-2 only)  
 Displays the setpoint and current room temperatures, current time, count down timer times and event times.
- ②⑧ **Timer and Room/Setpoint Temperature Indicator** (LM24-2 only)  
 Displays the setpoint and current room temperatures and Filter countdown time.
- ②⑨ **AM Indicator** (LM7-2 only)
- ③① **PM Indicator** (LM7-2 only)
- ③① **Inside Room Temperature Indicator**  
 Flashes to indicate current room temperature reading.
- ③② **Low Speed Fan Indicator**
- ③③ **Medium Speed Fan Indicator**
- ③④ **High Speed Fan Indicator**
- ③⑤ **Set Indicator**  
 Illuminates during time and time clock setting adjustments.
- ③⑥ **Degree Centigrade Indicator**  
 Flashes to indicate current room temperature reading.
- ③⑦ **Run Indicator**  
 Indicates the outdoor unit is in operation, flashes if on delay.
- ③⑧ **Auto Indicator**  
 Indicates the system will automatically select heating or cooling operation.
- ③⑨ **Heating Operation Indicator**
- ④① **Cooling Operation Indicator**
- ④① **Filter Indicator**
- ④② **Continuous Indicator**  
 Illuminates when fan is set to continuous mode of operation.
- ④③ **Lock Symbol**  
 Shows during backlight adjustments and when Turning On/Off backlight.
- ④④ **1 and 2 Indicator** (LM7-2 only)  
 Illuminates together with Event to show the programming event.

**08.02. LCD Backlight Functions**

**LM7-2 / LM24-2**



**08.02.01. LCD Backlight Level Adjustments**


1. Press and hold the **REPEAT** (LM7-2) or the **DISPLAY** (LM24-2) Button.
2. Press the  or  Buttons to adjust the backlight level as follow:
  - To brighten the backlight, press the  Button.
  - To dim the backlight, press the  Button.
3. Release the buttons at the desired level of LCD brightness. The  symbol will appear for 1 second showing that the backlight level is set.

**08.02.02. Turn ON/OFF LCD Backlight**

**To turn ON LCD backlight**


1. Press and hold the **REPEAT** (LM7-2) or the **DISPLAY** (LM24-2) Button for 4 seconds.
2. When the  symbol appears, release the **REPEAT** (LM7-2) or the **DISPLAY** (LM24-2) and the backlight will remain illuminated.

**To turn OFF LCD Backlight**

1. Press and hold **REPEAT** (LM7-2) or **DISPLAY** (LM24-2) Button for 4 seconds.
2. When the  symbol appears, release the **REPEAT** (LM7-2) or **DISPLAY** (LM24-2) and the backlight will turn Off after 6 seconds.

**08.02.03. Turn On the ON/OFF Button Light**

**NOTE**

The Wall Controller must be turned **ON** before operating this procedure. By default, the  Button backlight is **ON**.










1. Press and hold the **REPEAT** (LM7-2) or the **DISPLAY** (LM24-2) Button.
2. Press and release the  Button , along with the **REPEAT** (LM7-2) or the **DISPLAY** (LM24-2) Button.
3. The  symbol will appear and the  Button light will remain lit.

**08.02.04. Turn Off the ON/OFF Button Light**

1. Press and hold the **REPEAT** (LM7-2) or **DISPLAY** (LM24-2) Button.
2. Press and release the  Button , along with the **REPEAT** (LM7-2) or the **DISPLAY** (LM24-2) Button.
3. The  symbol will appear and the  Button light will turn Off after 6 seconds.










### 08.03. Cooling Operation (LM7-2)



1. Press the  Button.
2. Press the  Button until **COOL** appears on the display.
3. Set the desired temperature by pressing either the  or  Buttons.
  - Maximum temperature setting 30.
  - Minimum temperature setting 16.
  - For a WARMER room temperature, press the  Button.
  - For a COOLER room temperature, press the  Button.
4. Adjust the desired fan speed by pressing the  Button. When your air conditioner is turned On the indoor fan can run continuously and is indicated by the **CONT** indicator. 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  Button until the **CONT** indicator is Off.
5. Press the  Button again. The system will retain your last setting until next operation.

### 08.04. Heating Operation (LM7-2)

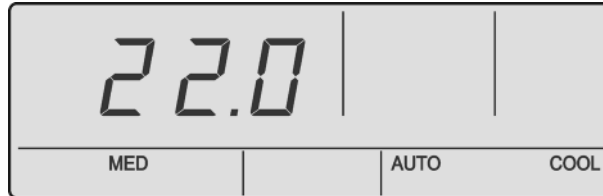











1. Press the  Button.
2. Press the  Button until **HEAT** appears on the display.
3. Set the desired temperature by pressing either the  or  Buttons.
  - Maximum temperature setting 30.
  - Minimum temperature setting 16.
  - For a WARMER room temperature, press the  Button.
  - For a COOLER room temperature, press the  Button.
4. Adjust the desired fan speed by pressing the  Button. When your air conditioner is turned On the indoor fan can run continuously and is indicated by the **CONT** indicator. 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  Button until the **CONT** indicator is Off.
5. Press the  Button again. The system will retain your last setting until next operation.

**08.05. Auto Operation (LM7-2)**

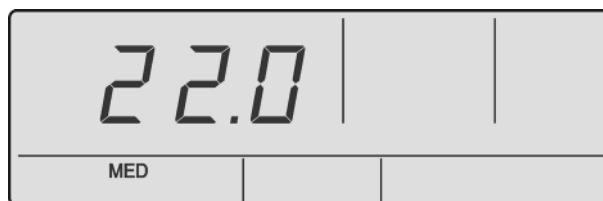
**NOTE**

Automatically changes between heating and cooling mode.






1. Press the  Button.
2. Press the  Button until **AUTO** appears on the display.
3. Set the desired temperature by pressing either the  or  Buttons.
  - Maximum temperature setting 30.
  - Minimum temperature setting 16.
  - For a WARMER room temperature, press the  Button.
  - For a COOLER room temperature, press the  Button.
4. Adjust the desired fan speed by pressing the  Button. When your air conditioner is turned On the indoor fan can run continuously and is indicated by the **CONT** indicator. 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  Button until the **CONT** indicator is Off.
5. Press the  Button again. The system will retain your last setting until next operation.

**08.06. Fan only operation (LM7-2)**



**NOTE**

The system's status must be of to set Fan mode.

1. Press the  Button.
2. Adjust the **FAN** speed by pressing the  Button .
3. To turn Off the fan operation, press the  Button again.

**08.07. ESP Fan Feature**

Available for ESP Plus and ESP Ultima Models

**CIRCULATION OPERATION**

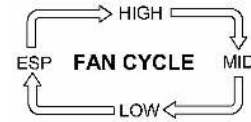
**Fan Speed Cycle:**

HIGH = High air circulation.

MED = Normal air circulation.

LOW = Low air circulation.

ESP = Variable air circulation, varying fan speed will be determined by the controller automatically. This will depend on number of outlets or zones open in an installation.



Wall Controller Display				
SPEED	SEGMENT INDICATOR			LCD DISPLAY
	HIGH	MED	LOW	
HIGH	ON			SET TEMP
MED		ON		SET TEMP
LOW			ON	SET TEMP
ESP	ON	ON	ON	ESP THEN SET TEMP

**CIRCULATION OPERATION**

**Fan Speed Cycle:**

HIGH = High air circulation.

MED = Normal air circulation.

LOW = Low air circulation.

CONT HIGH = High air circulation, continuous run.

CONT MED = Normal air circulation, continuous run.

CONT LOW = Low air circulation, continuous run.

ESP = Variable air circulation, varying fan speed will be determined by the controller automatically. This will depend on number of outlets or zones open in an installation.

CONT ESP = Continuous variable air circulation, varying fan speed will be determined by the controller automatically. This will depend on number of outlets or zones open in an installation.



Wall Controller Display					
SPEED	SEGMENT INDICATOR				LCD DISPLAY
	HIGH	MED	LOW	CONT	
HIGH	ON				SET TEMP
MED		ON			SET TEMP
LOW			ON		SET TEMP
ESP	ON	ON	ON		ESP THEN SET TEMP
CONT HIGH	ON			ON	SET TEMP
CONT MED		ON		ON	SET TEMP
CONT LOW			ON	ON	SET TEMP
CONT ESP	ON	ON	ON	ON	ESP THEN SET TEMP

**08.08. Timer Operation (LM7-2)**



**08.08.01. OFF Timer Function**

**NOTE**


The system's status must be On to set an OFF timer.

1. Press the **TIMER** Button to enter the timer menu.



2. Press the  or  Buttons to select the desired time for the system to remain operating before turning Off. The maximum adjustable timer hours are 24 with 0.5 hour (30 minute) adjustable increments.



3. If a timer is active, **TIMER** indicator will be displayed. To cancel the OFF Timer, press the  Button and the **TIMER** indicator will disappear.



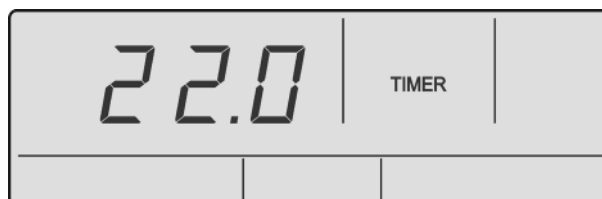
4. To change the Hour Set, follow the steps 1 and 2.



**08.08.02. On Timer Function (LM7-2)**

1. Press the **TIMER** Button to enter the timer menu.

**NOTE**

The system's status must be Off to set an On timer.



- Press the  or  Buttons to select the desired time for the system to remain operating before turning On. The maximum adjustable timer hours are 24 with 0.5 hour (30 minute) adjustable increments.



- To cancel the **TIMER**, press the  Button.



- To change the Hour Set, follow the steps 1 and 2.

## 09. Program Menu (LM7-2)

### 09.01. 7-Day Programmable Function



### 09.02. Time Clock Operation


**NOTE**

- The 7-Day Time clock feature of the LM7-2 controller 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 2-Programmed Events.
- Each event has an On and Off time.

**09.02.01. Example of Timeclock Operation**







		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	11:00am
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	--:	--:

**09.02.02. Cancelling an Individual Event**

Go to On time for the event you wish to cancel and press the  Button. --:-- will be displayed indicating the event is cancelled.

**09.03. Setting the Time and Day**

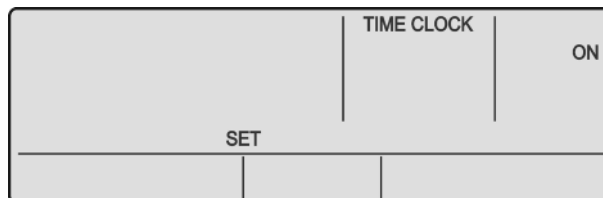


1. Press the **PROG** Button 3 times and **SET** will be illuminated with **TIME** flashing.
2. Adjust the Hours by using the  or  Buttons.
3. Press the **PROG** Button.
4. Adjust the Minutes by using the  or  Buttons.
5. Press the **PROG** Button.
6. Adjust the Day by using the  or  Buttons.


**Battery Back up**

During a power failure, the clock remains the same and day via the backup battery inside the system.

**09.04. Activating and Deactivating the 7-Day Time clock**




**Activating**

1. Press the **PROG** Button twice.
2. Press the  Button until **ON** is flashing.
3. Press the **EXIT** Button.
4. The **TIME CLOCK** indicator will be illuminated in the screen, indicating that the Time clock has been activated.





## De-activating

1. Press the **PROG** Button twice.
2. Press the  Button until **OFF** is flashing.
3. Press the **EXIT** Button.
4. The **TIME CLOCK** indicator will be turned Off, indicating that the Time clock has been deactivated.

## 09.05. Programming the Events



In the following example, **MONDAY, EVENT 1 and ON** time will be activated.

1. Press the **PROG** Button repeatedly until **EVENT 1** and **MON** is illuminating in the screen.
2. Press the  or  Buttons to adjust the time.
3. Press the **PROG** Button to move to Event 1 Off time and follow step 2.
4. Press the **PROG** Button to move to the next event.  
The event time is entered once you press the **PROG** Button. If you press the **EXIT** Button before moving to the next event, the time you have programmed will not be entered.
5. Repeat the above steps until you have programmed all the events you require.

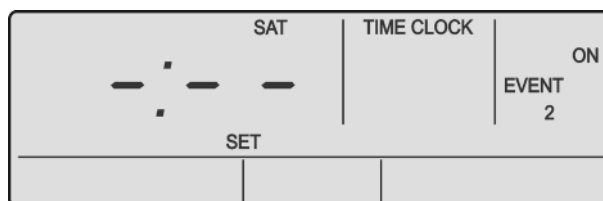
### Programming Past Midnight


- Event On times can be set up to 11:45 PM of the current day.
- Event Off times can be set to 9:00 AM the following morning.

### NOTE


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

## 09.06. Cancelling an Individual Event



1. Press the **PROG** Button repeatedly until **ON** time for the event you wish to cancel is displayed.
2. Press the  Button to delete event
3. **-:--** will be displayed indicating the event is cancelled.
4. Repeat above steps to cancel other days event.
5. See 7-Day time clock operation for programming sequence. Page 15

### Re-activating an Individual Event

1. Repeat steps 1 and 2 as above.
2. Press the  Button until the time re-appears.

### 09.07. Repeating a Day's Events and Times

This feature allows you to automatically repeat the previous days, events, and times, into the succeeding days.



1. Proceed to the day you wish to copy the programmed events and times. See Programming the Events from previous page.
2. Press the **PROG** Button until you reach the succeeding day's, Event 1, On time is displayed. **SET, EVENT 1, TIME CLOCK** and **ON** will be illuminated in the screen.
3. Press the **REPEAT** Button. You have now copied the previous day's events into the current day displayed.
4. Repeat Steps 2 and 3 above for the remaining days where you wish to repeat the programmed events and times.

## 10. Zone Controller Functions





### Turning Zones ON and OFF

1. Press the **Zone** Button to turn zones On and Off.
2. Lights are illuminated when zone is turned On.

#### NOTE

- By default, the minimum of one zone must be left On. This is controlled automatically by the wall control and will not allow you to turn off the last zone operating. However, it is possible to turn Off all zones in some models. Contact your installer for more details.
- Switching the last zone off will cause the controller to divert to Zone 1 automatically.

### Room Temperature Display

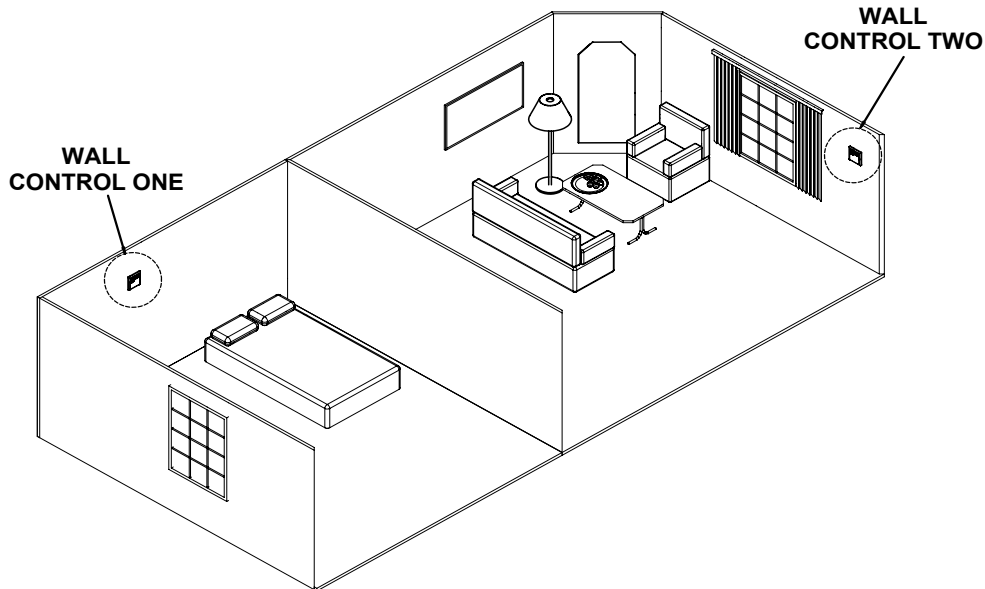
1. Press the  or  Buttons and the room temperature will be displayed for 3 seconds.

#### NOTE

- The room temperature displayed can be the temperature at the wall controls or remote wall sensors or a combination of both, depending on which zones are turned on.

## 11. Dual Wall Controller Operation

### MIMIC Control



- The air conditioner can be operated from either wall controller.
- Information displayed on the two wall controllers is identical.

#### Example 1

Using wall controller one, the cooling operation is started, both wall controllers will now show the system is in cooling mode. If another person uses wall controller two to select heating operation, the system will now change to the heating operation and both wall controllers will display the system is in heating operation.

#### Example 2

Using wall controller two, the circulation operation is selected, both wall controllers will now show the system in circulation mode. If another person uses wall controller two to select cooling operation, the system will now change to the cooling operation and both wall controllers will display the system is in cooling operation.

## 12. Setting The Upper And Lower Temperature Limits

### NOTES

The unit must be turned off before operating this procedure.  
You cannot adjust the upper limit below or the lower limit above your current set-temperature.

This feature allows you to set the upper and lower temperature limits on your wall control. This can be used in a variety of ways.

1. You may want the maximum set-temp limited to 25°C and the minimum set- temp to 20°C, thus stopping anyone from setting the temperature too high or too low.
2. You may want to lock the set-temp to 22°C to stop anyone else adjusting the set-temp up and down. To do this, simply adjust the upper and lower limit until they are the same.







### Default Upper and Lower Limits = Upper (30°C), Lower (16°C)





It is recommended not to adjust the upper and lower limits outside the defaults above. Doing so, may cause damage to your system and void warranty.

**Adjustable limits:** Upper = 10°C to 32°C      Lower = 10°C to 32°C

### Setting the Lower Limit

1. Press the  Button. Then press the  Button . You must press the two buttons in quick succession.
2. The display will now show the lower limit for 3 seconds and this is confirmed by **LOW** indicator also being turned On.
3. While the lower limit is displayed, use the  or  Buttons to adjust up or down.
4. After 5 seconds the lower limit will be automatically accepted.

### Setting the Upper Limit

1. Press the  Button. Then press the  Button. You must press the two buttons in quick succession.
2. The display will now show the upper limit for 3 seconds and this is confirmed by **HIGH** indicator also being turned On.
3. While the upper limit is displayed, use the  or  Buttons to adjust up or down.
4. After 5 seconds the Upper limit will be automatically accepted.

## 13. Operating Tips

### 13.01. During Summer

**NOTE**

Always allow the necessary amount of fresh air into rooms.

- 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 and 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.

### 13.02. During Winter

**NOTE**

Always allow the necessary amount of fresh air into rooms.

- 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 winter 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 and speed the heating up.

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

### 13.03. Energy Conservation Tips

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.

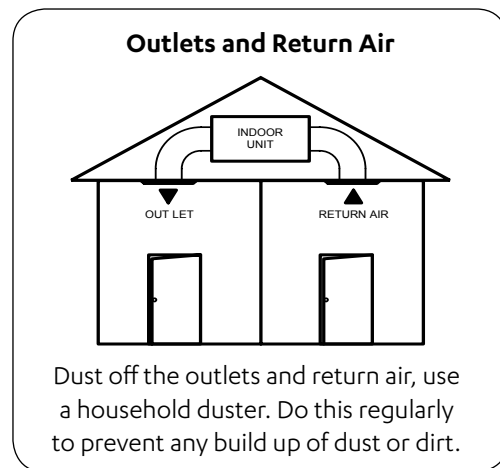
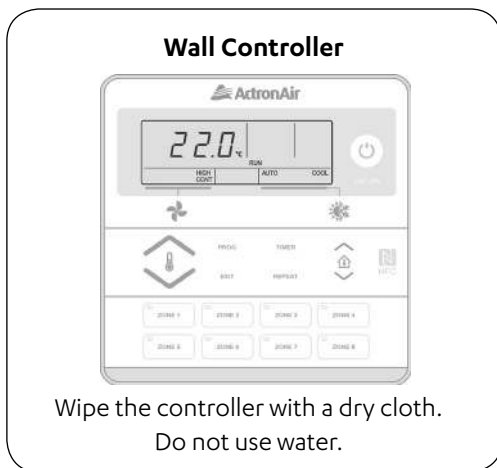
The normal setting recommended is 22°C for both summer and winter.

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

If your air conditioner has zones fitted, always turn off the zones you are not using as this will save energy by the air conditioner not having to operate as long.

## 14. Cleaning Maintenance



### 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.**

### NOTE

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.



- Do not obstruct airflow.
- Keep grass or plants away from the unit. This will ensure your air conditioner operates efficiently.

Regular servicing of equipment by a qualified technician is recommended every 12 months for residential applications and every quarter for commercial applications.

## 15. Troubleshooting


Condition	Causes or Check Points
<b>The system does not start.</b>	<ul style="list-style-type: none"> <li>• Check that 5 minutes has passed from turn on time, as the system has in built safety timers.</li> <li>• Check thermostat settings are correct.</li> <li>• Check the thermostat set-point is set low enough for cooling or high enough for heating.</li> </ul>
<b>Air does not flow. (Indoor Unit)</b>	<ul style="list-style-type: none"> <li>• Check Zones are switched on. (where fitted)</li> <li>• During heating operation, air does not flow out for approx. 15 seconds after start up, this prevents cold drafts.</li> <li>• 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.</li> </ul>
<b>Cooling/Heating is not sufficient.</b>	<ul style="list-style-type: none"> <li>• The cooling/heating function may not work effectively when the return air filter is clogged with dust and dirt.</li> <li>• Make sure the air inlet and air outlet on the outdoor unit are not blocked.</li> <li>• The outside temperature is above or below the design conditions.</li> </ul>
<b>Steam from outdoor unit.</b>	<ul style="list-style-type: none"> <li>• It is caused by the defrosting of the outdoor unit in heating operation in cold conditions.</li> </ul>
<b>Water from outdoor unit.</b>	<ul style="list-style-type: none"> <li>• This is normal during heating operation, it is due to water forming on the heat exchanger.</li> </ul>
<b>Occurring of noises</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• During defrost operation the compressor may generate more noise than normal.</li> </ul>
<b>Fault Codes</b>	<ul style="list-style-type: none"> <li>• When EXX is displayed on the wall controller, take note of the digits after E and contact your installer.</li> </ul>
<b>Set-temp can't be adjusted.</b>	<ul style="list-style-type: none"> <li>• Check your wall control set-temp limits are not being exceeded.</li> <li>• Check the upper and lower temperature are set correctly. (See Page 20)</li> </ul>
<b>7-day time clock is not turning the air conditioner on and off. (7-Day programmable model only)</b>	<ul style="list-style-type: none"> <li>• Check the time clock is activated. (See page 15)</li> </ul>
<b>7-day time lock is not accepting times you enter. (7-Day programmable model only)</b>	<ul style="list-style-type: none"> <li>• Check you don't have times overlapping from another day.</li> <li>• Make sure your not trying to set the time past the maximum allowable. (See programming past midnight Page 17)</li> </ul>
<p><b>Before contacting your installer, please have your air conditioners Model No. and Serial No. with you. (See Page 5)</b></p>	

## 16. Re-Setting The Wall Control

### Re-Setting the Time Clock (7-Day programmable model only)

**NOTE**

This will reset all the 7-Day time clock programs.






1. Make sure the wall controller is Off.
2. Press and release **PROG** Button, then press and hold the  Button for 3 seconds.
3. All the display indicators will light up for approximately 1 second and then all time clock programs have been re-set to the original factory settings.

## 17. Near Field Communication (NFC) Tag

LM7-2 and LM24-2 are NFC capable that allows the user to view and download the user manual. There are a wide variety of NFC reader Apps, below is an example of one App that can be used.

### 17.01. iOS Users

**Note:** Images may vary from those shown below.

<p>1. Go to App Store and download <b>NFC Reader for iPhone.</b></p> 	<p>2. Open NFC App. Read through NFC App Information and Click on <b>Let's get started.</b></p> 	<p>3. Place the mobile device close to <b>NFC</b> Tag on the controller. Follow the instructions on App.</p> 
<p>4. Once the tag has successfully scanned the image below will appear.</p> 	<p>5. A pop-up window will appear to redirect you to <a href="https://www.actronair.com.au/nfc">https://www.actronair.com.au/nfc</a></p> 	



- List of Controller Models will appear on the screen of your mobile device.  
Select the model number of your controller to view the operation manual.

**Note:** The Model number of your controller can be found underneath the Power On/Off button of the controller.

## 17.02. Android Users

**Note:** Images may vary from those shown below.

<p>1. Go to <b>Settings</b> and look for <b>NFC and payment</b>. Tap <b>ON</b> to activate NFC.</p> 	<p>2. Tap <b>Android Beam</b></p> 	<p>3. Follow the on-screen instructions.</p> 
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- Once successfully scanned, a pop-up window will appear to redirect you to external website.  
<https://www.actronair.com.au/nfc>

- List of Controller Models will appear on the screen of your mobile device.  
Select the model number of your controller to view the operation manual.

**Note:** The Model number of your controller can be found underneath the Power On/Off button of the controller.

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