ActronAir

WALL CONTROL 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.

<u>Return to Home Page</u>

Operation Manual

LM7/24-2 Wall Control

5

Table of Contents

- 01. General Information 3
- 02. Waste Electrical and Electronic

Equipment Disposal Guideline 5

03. Maintenance

04.	Operational Precaution 5
05.	System Information 6
06.	Features 7
07.	Basic Operation 8
08.	Program Menu (LM7-2) 16
09.	Zone Controller Functions
10.	Dual Wall Controller Function 20
11.	Setting the Upper and Lower Temperature Limits 20

12.	Operating Tips	2
13.	Cleaning Maintenance 24	ŀ
14.	Troubleshooting 25	.)

01. <u>General Information</u>

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. 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 a particularly hot environment as extreme temperatures may damage the electronic equipment.
- Do not attempt to open the control 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 noncondensing
- •Operating conditions: -10 to 60°C, < 90% RH noncondensing

02.<u>Waste Electrical and Electronic Equipment</u> <u>Disposal Guideline</u>



- 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.<u>Maintenance</u>

- 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.
- 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.

 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. <u>Operational Precautions</u>

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.

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 person 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 allow 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.

05. 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 Control					
Model No.					
The wall control m	The wall control model number is situated in front of the wall control.				
Installer					
Company Name					
Phone Number					
Technicians Name					

Page 6

LM7/24-2 Wall Control

06.Features

1	Auto-Restart After Power Failure Should a power failure occur whilst the air conditioner is running, the wall control will restart the air conditioner in the same mode when the power is restored, if this option is selected.
2	Dual/Triple Wall Control Operation (Optional) 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.

Room Temperature Display with One Touch

Press the 🏠 or 💷 Buttons and the set temperature display will change to show the room temperature for 3 seconds.

Note: 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).

Integrated Zoning

3

4

5

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.

Auto Defrost Function (Heating Mode)

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 system detects this frost build up and will automatically activate the defrost mode.

The defrost mode is displayed on the wall control by flashing the **DEFROST** indicator every 10 seconds.

6	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 minimising cold drafts. The hot start feature also activates itself when the system finishes defrosting.
7	Filter Clean Light The system monitors the accumulated run time of the air conditioner and after a preset number of hours have expired, the FILTER indicator will flash, indicating it's time to check if filter requires cleaning.
8	Self Diagnosis In the unlikely event that a fault develops with the air conditioner the system will detect a fault and displays the relevant fault code on the wall control. See Troubleshooting on Page 25.

NOTE

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

Page 7

07. <u>Basic Operation</u>

07.01. Wall Control Functions

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

LM7-2



LM24-2



LCD Display Displays the setting and operation conditions (See next page for details).

(2)

1)

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.

LM7/24-2 Wall Control

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	 Repeat / Backlight Button (LM7-2 only) Repeats the previous day settings to the current day. Adjust and Turn On/Off Backlight.
8	Select/Clock-Up Setting and Room Temp Display Button
9	Select/Clock-Down Setting and Room Temp Display Button
(10)	Operation MODE Button For setting the mode of operation (auto, heat, cool and fan-only mode).
(11)	TIMER Operation Button Activates timer function.
(12)	Power On/Off Button
(13)	Zone 1 Button with On/Off Indicator
(14)	Zone 5 Button with On/Off Indicator
(15)	Zone 2 Button with On/Off Indicator
(16)	Zone 6 Button with On/Off Indicator
(17)	Zone 3 Button with On/Off Indicator
(18)	Zone 7 Button with On/Off Indicator
(19)	Zone 4 Button with On/Off Indicator
20	Zone 8 Button with On/Off Indicator
(21)	Display / Backlight Button (LM24-2 only) Adjust and Turn On/Off Backlight.
22	NFC Tag

LM7-2 Display



Page 9

<u>Return to Home Page</u>



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)

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



AM Indicator (LM7-2 only)



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.



Timer and Room/Setpoint Temperature Indicator (LM24-2 only) Displays the setpoint and current room temperatures and Filter countdown time.



LM7/24-2 Wall Control

LCD Backlight Functions 07.02. LM7-2/LM24-2



LCD Backlight Level Adjustments 07.02.01.

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

07.02.02. Turn ON/OFF LCD Backlight

To turn ON LCD Backlight

- Press and hold the **REPEAT** (LM7-2) or the **DISPLAY** 1. (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 Backliaht

- Press and hold **REPEAT** (LM7-2) or **DISPLAY** 1. (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.

07.02.03. Turn On the ON/OFF Button Light

NOTE

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

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

will remain lit.

07.02.04. Turn Off the ON/OFF Button Light

- 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.

07.03. Cooling Operation (LM7-2)



- 1. Press the 🕑 button.
- 2. Press the button until **COOL** appears on the display.
- 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 A
 - •For a COOLER room temperature, press the 🤳
- 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.

07.04. Heating Operation (LM7-2)



- 1. Press the 🕑 button.
- 2. Press the button until **HEAT** appears on the display.

- 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 A
 - •For a COOLER room temperature, press the 🤳
- 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.

07.05. Auto Operation (LM7-2)

NOTE

Automatically changes between heating and cooling mode.



	•	
MED	AUTO	COOL

- 1. Press the 🕑 button.
- 2. Press the the button until **AUTO** appears on the display.
- 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 Jutton.
- 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 the button until the **CONT** indicator is Off.

5. Press the 🕑 button again. The system will retain your last setting until next operation.

07.06. Fan only operation (LM7-2)



MED	

NOTE

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

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

07.07. 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						
	SEC	LCD				
SPEED	HIGH	MED	LOW	DISPLAY		
HIGH	ON			SET TEMP		
MED		ON		SET TEMP		
LOW			ON	SET TEMP		
	ON	ON	ON	ESP THEN SET		
ESP				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.

= Variable air circulation, varying fan speed ESP 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					
		LCD			
SPEED	HIGH	MED	LOW	CONT	DISPLAY
HIGH	ON				SET TEMP
MED		ON			SET TEMP
LOW			ON		SET TEMP
	$\cap \mathbb{N}$				ESP THEN
ESP	ON	ON	ON		SET TEMP
CONT HIGH	ON			ON	SET TEMP
CONT MED		ON		ON	SET TEMP
CONT LOW			ON	ON	SETTEMP
	NT ESP ON ON OI			ESP THEN	
CONTESP		UN	UN	SET TEMP	

07.08. Timer Operation (LM7-2) 07.08.01. OFF Timer Function

NOTE

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

Press the **TIMER** button to enter the timer menu.



2. Press the \widehat{m} or $\widehat{\textcircled{u}}$ 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.



If a timer is active, **TIMER** indicator will be 3. displayed. To cancel the OFF Timer, press the (\circ)

button and the **TIMER** indicator will disappear.



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

07.08.02. 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.



2. Press the for for 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.



3. To cancel the **TIMER**, press the 🕑 button.



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

08.Program Menu (LM7-2)



08.01. 7-Day Programmable Function



08.02. 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.

08.02.01. Example of Time Clock Operation

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

08.02.02. 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.

08.03. 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 \widehat{a} or $\widehat{\underline{b}}$ buttons.
- 3. Press the **PROG** button.
- 4. Adjust the Minutes by using the $\widehat{}$ or $\widehat{}$ buttons.
- 5. Press the **PROG** button.
- 6. Adjust the Day by using the 🏠 or 塗 buttons.

Battery Back up

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

08.04. Activating and Deactivating the7-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.
- The TIME CLOCK indicator will be turned Off, indicating that the Time clock has been deactivated.

Page 17

LM7/24-2 Wall Control

Programming the Events 08.05.



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

- Press the **PROG** button repeatedly until **EVENT 1** 1. and **MON** is illuminating in the screen.
- 2. Press the 🏠 or 🚇 buttons to adjust the time.

- Press the **PROG** button to move to Event 1 Off time 3. 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.

Cancelling an Individual Event 08.06.



- Press the **PROG** button repeatedly until **ON** time 1. for the event you wish to cancel is displayed.
- 2. Press the (v) button to delete event
- -:-- will be displayed indicating the event is 3. cancelled.
- Repeat above steps to cancel other days event. 4.
- See 7-Day time clock operation for programming 5. sequence on Page 16.

Re-activating an Individual Event

- Repeat steps 1 and 2 as above. 1.
- 2. Press the () button until the time re-appears.

08.07. Repeating a Day's Events and Time

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



- Proceed to the day you wish to copy the programmed events and times. See Programming the Events from previous page.
- 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.

09. 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

 Press the for 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.

Page 19

LM7/24-2 Wall Control

10. <u>Dual Wall Controller Operation</u> 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.

11. <u>Setting The Upper And Lower Temperature</u> <u>Limits</u>

NOTE

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.

 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. 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 = $10^{\circ}C$ to $32^{\circ}C$ Lower = $10^{\circ}C$ to $32^{\circ}C$

Setting the Lower Limit

- Press the Dutton. Then press the U
 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.
- 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

- Press the for button. Then press the for 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.
- 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.

Page 21

LM7/24-2 Wall Control

12. <u>Operating Tips</u>

12.01. During Summer

NOTE

Always allow the necessary amount of fresh air into rooms.

Always test run your air conditioner a few 1. 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 about the minimum zones you should use on your system.

During Winter 12.02.

Always allow the necessary amount of fresh air into rooms.

- Always test run your air conditioner a few 1. 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.

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.

12.03. 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.

Page 23

LM7/24-2 Wall Control

13. <u>Cleaning Maintenance</u>





Air Filter Cleaning

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

- **Open the inlet grille.** Caution, dust may fall from 1. 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.

14. <u>Turning Air Conditioner On/Off</u>

NOTE

The air conditioning system will re-start on your last settings and operating mode e.g. 22°C set temperature, AUTO mode, HIGH fan speed. The display will show the Set Temperature, Fan Speed, Fan Mode and Mode of Operation.



- 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.



LM7/24-2 Wall Control

15. <u>Troubleshooting</u>

Condition	Causes or Check Points			
The system	 Check that 5 minutes has passed from turn on time, as the 			
does not start.	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			
Air does not	 Check Zones are switched on. (where fitted) 			
flow.	 During heating operation air does not flow out for approx 			
(Indoor Unit)	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			
	nevent cold air being blown into rooms			
Coolina/	 The cooling/heating function may not work effectively 			
Heating is not	when the return air filter is cloaged with dust and dirt			
sufficient	 Make sure the air inlet and air outlet on the outdoor unit are 			
Junicient.	not blocked			
	• The outside temperature is above or below the design			
	 The outside temperature is above of below the design conditions 			
Steam from	 It is caused by the defrosting of the outdoor unit in heating 			
outdoor unit	operation in cold conditions			
Water from	 This is normal during heating operation, it is due to water 			
outdoor unit.	forming on the heat exchanger.			
Occurring of	 When heating or cooling is started or stopped, a swishing or 			
noises	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	 When EXX is displayed on the wall controller, take note of 			
	the digits after E and contact your installer.			
Set-temp	 Check your wall control set-temp limits are not being 			
can't be	exceeded.			
adjusted.	 Check the upper and lower temperature are set correctly. 			
	(See Page 20)			
7-day time				
clock is not				
turning the air				
conditioner on	· Chack the time clock is activated (See page 17)			
and off.	• Check the time clock is activated. (See page 17)			
(7-Day				
programmable				
model only)				
7-day time				
clock is not				
accepting	 Check you don't have times overlapping from another day. 			
times you	 Make sure your not trying to set the time past the 			
enter.	maximum allowable. (See programming past midnight Page			
(7-Day	18)			
programmable				
model only)				
Before cont	tacting your installer, please have your air conditioners			
Model No. and Serial No. with you. (See Page 6)				

Page 25

16. <u>Re-Setting The Wall Control</u>

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

NOTES

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. <u>Near Field Communication (NFC) Tag</u>

LM7/24-2 is NFC capable that allows the user to view and download the user manual. There is 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 to below.

1. Go to App Store and download	2. Open NFC App. Read through	3. Place the mobile device close to	
NFC Reader for Iphone.	NFC App Information and Click on	NFC Tag on the controller. Follow	
	Let's get started.	the instructions on App.	
NFC Reader	🖀 App Store 🖬 4G 2:01 pm 88%	••■ Optus 4G 10:35 am 93% ■ ••• NFC Reader 🔟	
for iPhone Scan NFC NDEF Tags	NÊC		
GET	I have more questions. Where can I get more help?	NÊC	
	Please refer to the help section in the	Press Scan and hold the NFC Tag at the backside of your	



- 6. 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.

LM7/24-2 Wall Control

17.02. Android Users

Note: Images may vary to below.

1. Go to Settings and look for	2. Press Android Beam.	3. Follow the on-screen instructions.	
NFC and payment. Press ON to			
activate NFC.		 ▲ ▶ i¥I 常 al 33% ■ 1:27 PM ← Android Beam 	
 N: X d 2% d 11:46 AM Settings SEARCH Wi-Fi Bluetooth Flight mode Flight mode Mobile hotspot and tethering Data usage NFC and payment More connection settings Smart Manager Applications 	Allow the use of mobile payment services, data exchange, and the reading and writing of tags when the device touches another device. Android Beam On Tap and pay	Share files between NFC-capable devices by holding them close together. You can then share webpage links, contacts, and more. 1. Simply bring the devices together, back to back 2. Tap your screen.	
Sounds and vibration Notifications			

4. Once successfully scanned, a pop-up window will appear to redirect you to external website. https://www.actronair.com.au/nfc

5. 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.

Page 27



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