COMMERCIAL AIR CONDITIONING SYSTEM
CONTROL INTERFACE
Operating Instructions

Control Interface
Model Number
CL01-2W (White)
CL01-2G (Grey)

AVAILABLE AS AN OPTIONAL ACCESSORY
FOR TRI-CAPACITY MODELS ONLY

IMPORTANT NOTE:
Please read this manual carefully before installing or operating your air conditioning unit.
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01. General Information

CONGRATULATIONS! The CL01-2 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 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: 20VDC (±10%)
- 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

NOTE
Do not use ActronAir 4 Core Data Cable Part No. 4070-003.
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. EC Plug Fan has dual power supplies, i.e. 415V/3Ph+N/50Hz motor power supply plus 10VDC control power supply. Care must be taken to ensure both are safely isolated to prevent personal injury and damage to the equipment.

5. This control interface has power supplied from ActronAir CM100 controller via screwed terminals and twisted pair data cable, with nominal voltage of 20VDC (+10%). Ensure that this unit is not installed on voltages other than specified.

6. Installation and servicing must be carried out by a qualified technician.

7. 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.

8. WH&S rules and regulations must be observed and will take precedence during installation process.

9. 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

<table>
<thead>
<tr>
<th>AIR CONDITIONER</th>
<th>WALL CONTROLLER</th>
<th>INSTALLER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model No.</td>
<td>Model No.</td>
<td>Company Name</td>
</tr>
<tr>
<td>Serial No.</td>
<td></td>
<td>Phone Number</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technicians Name</td>
</tr>
</tbody>
</table>

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

The wall controller model number is situated in front of the wall controller.
07. Features

<table>
<thead>
<tr>
<th></th>
<th>Feature Description</th>
</tr>
</thead>
</table>
| 1 | **LCD Display**  
The LCD displays the system mode, operation status and error codes. The LCD has a capability to enable and disable the backlight. This is useful during night time or in areas with poor lighting condition. In addition, the brightness of the LCD backlight is easily adjustable. |
| 2 | **Saves the Last Settings During Power Failure**  
The controller will automatically reinstate the air conditioner to the previous settings after power failure. |
| 3 | **7-Day/Programmable Time Clock with 2 Events per day**  
The controller, through the 7-Day programmable time clock function can be programmed for each day of the week to turn your air conditioner On/Off. Each day can have two programmed events, wherein each event has On and Off time. |
| 4 | **After Hours Timer**  
Dedicated After Hours timer button available. This is useful when the system is required to start outside the pre-programmed time clock. |
| 5 | **Adjustable Upper and Lower Limits and Lockable Set Temperature**  
The default operating range is factory set at 16°C to 30°C. This range can be narrowed for better efficiency, however it is not advisable to operate the system beyond the factory set operating range as it can be detrimental to the system. The chosen setpoint can also be locked if required. |
| 6 | **Averaging Temperature Readings**  
The built-in temperature sensor can be used together with the factory supplied return air temperature sensor to average the building temperature readings. The CL01-2 can be located further away from the return air temperature sensor for improved temperature control. |
| 7 | **Inside Temperature Display with One Touch**  
Simply press the button and the current building temperature will be displayed for 10 seconds. |
| 8 | **Outside Temperature Display with One Touch**  
Simply press the button and the outside temperature will be displayed for 10 seconds. |
| 9 | **Programmable Temperature Setback Function**  
Temperature setback is useful in unoccupied times or during the night to maintain a maximum or minimum room temperature. |
| 10 | **Self Diagnostic Alarm and Fault Display**  
In the unlikely event that a fault develops with the air conditioner the microprocessor will diagnose the fault (where possible) and display a fault code on the wall controller. |
| 11 | **Return Air Filter Alarm Indication**  
This is a time based alarm control, which is used to indicate when the filters will need to be checked for cleaning or replacement. The controller will not stop the air conditioning system from operation, but will just indicate a warning alarm. |
08. Basic Operation

08.01. Control Interface Functions

1. **Operation Mode button**
   Selects Auto/Heat/Cool Modes.

2. **Fan Control button**
   Changes fan speed: High, Medium, Low (For Optional 3-Speed Fan only).
   Selects continuous and non-continuous fan operation.

3. **Program button**
   Sets the Clock and 7-Day Time Clock Events.

4. **Temp Setpoint Adjustment button**
   Raises and lowers temperature setpoint.
   Also use to scroll Up or Down menu.

5. **Exit button**
   Quick exit from programming menu.

6. **Power ON/OFF button**
   To turn the system ON/OFF.

7. **Display button**
   Displays the temperature setpoint, current room temperature or current day and time.

8. **After Hours button**
   To activate After Hours function.

9. **Repeat button**
   Repeats the previous settings for the current day time clock settings.

10. **NFC Tag**

11. **Select Up/Down buttons**
    To adjust backlight level, time and day.
    To select set back operating mode and temperature upper/lower limits. Also,
    : Displays building temperature
    : Displays outside temperature

12. **Cancel/Restore button**
    Cancel or restore time clock events.
**NOTE**
The Wall Controller must be turned On before operating this procedure.

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

**Set Back**
Illuminates when set back is active.

**Reserve**
After hours
Illuminates when After Hours is enabled.

**Time Clock Indicator**
**Timer/Clock and Room/Setpoint Temperature Indicator**
Displays the setpoint and current room temperatures, current time, count down timer times and event times.

**AM/PM Indicator**
**Outside Temperature Indicator**
Indicates outside temperature reading.

**Inside Room Temperature Indicator**
Flashes to indicate current room temperature reading.

**Reserve**
**On Indicator**
**Event Indicator**
Indicates which event of the day Time Clock is set.

**Off Indicator**
**1 and 2 Indicator**
Illuminates together with Event to show the programming event.

**Low Speed Fan Indicator**
**Medium Speed Fan Indicator**
**High Speed Fan Indicator**
* Medium Speed
(Default 1-Speed Fan Indicator)
Low/Medium/High Speed
(Applicable to Optional 3-Speed Fan only)

**Continuous Indicator**
Illuminates when fan is set to continuous mode of operation.

**Set Indicator**
Illuminates during time and time clock setting adjustments

**Lock Symbol**
Shows when Turning On/Off backlight and during adjustments. Also indicates when keypad is locked.

**Degree Centigrade Indicator**
Flashes to indicate current room temp/outside temp reading. Turns On when SETPOINT is being displayed.

**Run Indicator**
Indicates the outdoor unit is in operation, flashes if on delay.

**Auto Indicator**
Indicates the system will automatically select cooling or heating operation.

**Heating Operation Indicator**
**Defrost Indicator**
**Cooling Operation Indicator**
**Program Indicator**
**Filter Indicator**
09. Turning Air Conditioner On/Off

**NOTES**
- The air conditioning system will re-start on your last setting and operating mode, i.e. 22°C set temperature, Auto, Cool or Heat mode.
- The display will show the Set Temperature, Fan Speed, Fan Mode and Mode of Operation.

09.01. Turning On and Off Air Conditioner

1. Press the button once to turn it On and press the button once again to turn it Off.

09.02. Setting Room Temperature Setpoint

**Setpoint Temperature**
Set the desired temperature by pressing either the or buttons.

**NOTES**
- Maximum temperature setting is 30°C.
- Minimum temperature setting is 16°C.
- For a WARMER room temperature, press the button.
- For a COOLER room temperature, press the button.
- Press and hold the or buttons will increase or decrease the temperature increment by 1.0°C.
- Pressing the or buttons will increase or decrease the temperature by 0.1°C, otherwise 1.0°C increments if the button is pressed and held.
09.03. Viewing Building /Outside Temperature

To View Inside Building Temperature
Press the button to view your inside building temperature.

To View Outside Temperature
Press the button to view your inside building temperature.

09.04. Backlight

To Adjust The Level Of LCD Backlight Brightness
1. Press and hold the REPEAT button, then press the or buttons to adjust the backlight level as follows:
   • To brighten the backlight press the button.
   • To darken the backlight press the button.
2. Release the buttons at the desired level of LCD brightness and the symbol will appear for 3 seconds indicating the backlight level is set.

To Turn-On LCD Backlight
Press and hold the REPEAT button for 4 seconds. When the symbol appears on the LCD, release the REPEAT button, the backlight will remain On.

To Turn-Off LCD Backlight
Press and hold the REPEAT button for 4 seconds. When the symbol appears on the LCD, release the REPEAT button, the backlight will turn Off after 15 seconds.

To Turn-On The button Backlight

NOTE
CL01-2 must be turned On before operating this procedure.

1. Press and hold the REPEAT button, then press and release the button.
2. Release the REPEAT button, the symbol will appear for 3 seconds and the button backlight will remain On.

To Turn-Off The button Backlight

1. Press and hold the REPEAT button, then press and release the button.
2. Release the REPEAT button, the symbol will appear and the button backlight will turn On after 15 seconds.
09.05. Cooling and Heating Operation

09.05.01. Cooling Operation

1. Make sure the CL01-2 is turned On.
2. Press the MODE button until COOL appears on the display.
3. Set the desired temperature by pressing either the or buttons.

**NOTE**
- 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 Indoor Fan speed by pressing the FAN button.

**NOTE**
LOW, MED or HIGH Fan Speed can only be selected if 3-Speed Fan setting option is available. Otherwise only MED is available.

09.05.02. Heating Operation

1. Make sure the CL01-2 is turned On.
2. Press the MODE button until HEAT appears on the display.
3. Set the desired temperature by pressing either the or buttons.

**NOTE**
- 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 Indoor Fan speed by pressing the FAN button.

**NOTE**
LOW, MED or HIGH Fan Speed can only be selected if 3-Speed Fan setting option is available. Otherwise only MED is available.

**IMPORTANT NOTE**
When the system is On, the Indoor Fan can run continuously and is indicated by the CONT indicator on LCD. This is generally preferred during the Cooling Mode to ensure maximum air circulation. However, for units with optional Outside Air, Indoor Fan operation should be specifically set to satisfy your application requirements.

09.06. Auto and Fan Only Operation

09.06.01. Auto Operation

1. Press the button, to make sure the CL01-2 is turned On.

2. Press the MODE button until AUTO appears on the display.

3. Set the desired temperature by pressing either the or buttons.

**NOTE**
- 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 Indoor Fan speed by pressing the FAN button.

**NOTE**
LOW, MED or HIGH Fan Speed can only be selected if 3-Speed Fan setting option is available. Otherwise only MED is available.
09.06.02. Fan Only Operation

1. Make sure the system is Off.
2. For 1-Speed Fan, press the FAN button.

**NOTE**
If Fan Speed is locked to 1-Speed Fan, CL01-2 will only allow MED speed.

3. For 3-Speed Fan, adjust the Indoor Fan speed (LOW, MED and HIGH) by pressing the FAN button successively until you reach the desired speed.

**NOTE**
3-Speed Indoor Fan operation is an optional feature.

**IMPORTANT NOTE**
When the system is On, the Indoor Fan can run continuously and is indicated by the CONT indicator on LCD. This is generally preferred during the Cooling Mode to ensure maximum air circulation. However, for units with optional Outside Air, Indoor Fan operation should be specifically set to satisfy your application requirements.

09.07. Setting the Clock

The air conditioning system must be turned On before performing these procedures.

1. Press the PROG button 3 times. TIME indicator will be flashing together with the hour field, i.e. 10:00 AM.
2. Press the or buttons to adjust the hour. AM/PM will adjust after 12.
3. Press the PROG button to enter the hour. TIME indicator will be flashing together with the minute field.
4. Press the or buttons to adjust the minute.
5. Press the PROG button to enter the minute. Day indicator will be flashing, i.e. MON.
6. Press the or buttons to adjust the day.
7. Press the PROG button to enter the set time/day and then press EXIT button to exit the set up procedure.
8. Press the DISPLAY button to make sure that you set the time and day correctly.

**NOTES**

- Current Fan Speed and Mode of Operation will also be displayed in the screen.
- During a Power Failure, the clock will retain the time and day via the backup battery inside the system.

## 09.08. Setting the Upper and Lower Temperature Limits

![](image)

This feature allows you to set the upper and lower temperature limits on your Control Interface. 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.

### 09.08.01. Setting Lower Limit

1. Press the button and then the button. You must press the two buttons in quick succession. The display will now show the lower limit for 3 seconds and this is confirmed by flashing LOW indicator.
2. While the lower limit is displayed, use the or buttons to adjust the lower limit up or down. After 5 seconds the lower limit will be automatically accepted. You cannot adjust the lower limit above your current set-temperature.

### 09.08.02. Setting Upper Limit

1. Press the button and then the button. You must press the two buttons in quick succession. The display will now show the lower limit for 3 seconds and this is confirmed by flashing HIGH indicator.
2. While the upper limit is displayed, use the or buttons to adjust the lower limit up or down. After 5 seconds the lower limit will be automatically accepted. You cannot adjust the upper limit below your current set-temperature.
**09.09. Temperature Set Back**

Normally, the air conditioning system is turned Off at unoccupied times or at night. The building temperature can get quite hot (e.g. 30°C) or quite cold (e.g. 12°C). When you turn on the air conditioning system, it takes a long time to achieve a comfortable temperature (e.g. 23°C). The temperature set back feature will maintain the building temperature at pre-determined and reasonable temperature closer to your chosen set temperature (e.g. 23°C), thus giving you a big head start in achieving your comfortable temperature.

![Image of temperature set back feature](image)

**NOTE**
The air conditioning system must be turned Off before performing these procedures.

**09.09.01. Setting the Temperature Set Back**

1. Press and hold the **FAN** button. Press the **PROG** button and release them altogether. Menu 01 will be displayed with **PROG** indicator flashing.

2. Press the **↓** button repeatedly until menu number 06 is displayed.

3. Press the **PROG** button to enter menu 06.

4. Press the **↑** or **↓** buttons to select ON (to enable Setback feature).

5. Press the **EXIT** button to enable Setback feature.

6. Press the **↑** button to get into menu 07 and then the **PROG** button to enter menu 07.

7. Press the **↑** or **↓** buttons to select set back operating mode, i.e.
   - Cool mode only: **COOL** indicator will be illuminated.
   - Heat mode only: **HEAT** indicator will be illuminated.
   - Auto mode: **COOL** and **HEAT** indicators will be illuminated.
   When Setback is disabled, **SETBACK** and **OFF** will be flashing.

8. Press the **PROG** button to accept selection.

**NOTE**
Current Cool mode set back temperature will be displayed, **SETBACK** and **COOL** indicators will be illuminated and **ON** indicator will be flashing.

9. Press the **↑** or **↓** buttons to set your desired Cool mode set back temperature.

10. Press the **PROG** button to lock-in your desired Cool mode setback temperature.

**NOTE**
Current Heat mode set back temperature will be displayed, **SETBACK** and **HEAT** indicators will be illuminated and **ON** indicator will be flashing.

11. Press the **↑** or **↓** buttons to set your desired Heat mode set back temperature.

12. Press the **PROG** button to lock-in your desired HEAT mode setback temperature. **SET BACK** indicator will be illuminated to confirm that set back is now active.

13. Press the **EXIT** button twice to go back to Main screen.
10. 7-Day Programmable Function

10.01. Time Clock Operation

NOTES
- The 7-Day Time Clock feature of the CL01-2 controller allows you to set the air conditioning system to turn on and turn 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.
- Ensure that the current day and time are set correctly before proceeding with programming.

Example Of Typical Time Clock Set Up

<table>
<thead>
<tr>
<th>EVENT 1</th>
<th>MON</th>
<th>TUE</th>
<th>WED</th>
<th>THU</th>
<th>FRI</th>
<th>SAT</th>
<th>SUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Time</td>
<td>6:00am</td>
<td>6:00am</td>
<td>6:00am</td>
<td>6:00am</td>
<td>6:00am</td>
<td>7:00am</td>
<td>8:00am</td>
</tr>
<tr>
<td>Off Time</td>
<td>10:00am</td>
<td>10:00am</td>
<td>10:00am</td>
<td>10:00am</td>
<td>10:00am</td>
<td>9:00am</td>
<td>11:00am</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EVENT 2</th>
<th>MON</th>
<th>TUE</th>
<th>WED</th>
<th>THU</th>
<th>FRI</th>
<th>SAT</th>
<th>SUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Time</td>
<td>4:00pm</td>
<td>4:00pm</td>
<td>4:00pm</td>
<td>4:00pm</td>
<td>1:00pm</td>
<td>-:-</td>
<td>-:-</td>
</tr>
<tr>
<td>Off Time</td>
<td>10:00pm</td>
<td>10:00pm</td>
<td>10:00pm</td>
<td>10:00pm</td>
<td>11:00pm</td>
<td>-:-</td>
<td>-:-</td>
</tr>
</tbody>
</table>

10.02. Setting the Programmable Time Clock

1. Press the PROG button repeatedly until you get into Time clock setting screen. TIME CLOCK, PROG, ON, EVENT 1, MON and SET indicators and Time Fields will be shown in the screen. You can now set the Event 1 ON time for Monday.
2. Use the up or down buttons to adjust the time.
3. Press the PROG button to move to Event 1 Off time.
4. Follow step 2 above.
5. Press the PROG button to move to the next event. Press the EXIT button at any time if no further changes to later Days/Events are required.
6. Repeat the above steps until you have programmed all the events you require.

NOTES
During a Power Failure, the clock will retain the time and day inside the system.
10.03. Repeating Day’s Events and Times

This feature allows you to automatically repeat the previous days, events, and times, into the succeeding days, therefore eliminating the need to re-enter the events and times into the succeeding days.

1. Go to the day you wish to copy the programmed events and times. See Section 10.02. Setting the Programmable Time Clock.
2. Press the PROG button until you reach the day you wish to paste the copied programmed events and times. 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.

10.04. Programming Past Midnight

<table>
<thead>
<tr>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Event On times can be set up to 11:45 PM of the current day.</td>
</tr>
<tr>
<td>• Event Off times can be set to the following day up to 23 hours and 45 minutes after the On time.</td>
</tr>
<tr>
<td>• If you program Event 1 past midnight, Event 2 will be automatically cancelled.</td>
</tr>
</tbody>
</table>

10.05. Cancelling/Re-activating An Event

10.05.01. Cancelling An Individual Event

1. Press the PROG button repeatedly until the ON time for the event you wish to cancel is displayed.
2. Press and release the CANCEL/RESTORE button. --::-- will be displayed indicating the event is cancelled.
3. Repeat step 2 above until you have cancelled all the desired events.

<table>
<thead>
<tr>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cancelling Event 1 will cancel both Event 1 and Event 2.</td>
</tr>
<tr>
<td>• Cancelling Event 2 will only cancel Event 2.</td>
</tr>
</tbody>
</table>
10.05.02. Re-activating An Event

1. Press the PROG button repeatedly until the ON time for the event you wish to re-activate is displayed.
2. Press and release the CANCEL/RESTORE button. The event’s ON time will be displayed indicating the event is re-activated.
3. Repeat step 2 above until you have re-activate all the cancelled events.

10.06. De-activating /Re-activating the 7-Day Time Clock

10.06.01. De-activating the 7-Day Time Clock

1. Press the PROG button 2 times. TIME CLOCK and PROG indicators will be illuminated in the screen and ON indicator will be flashing in the screen.
2. Press the ( ) button. TIME CLOCK and PROG indicators are still illuminated. OFF indicator will be flashing in the screen, replacing ON.
3. Press the EXIT button. TIME CLOCK and PROG indicators will disappear from the screen, indicating that the Time Clock has been de-activated.

10.06.02. Re-activating the 7-Day Time Clock

1. Press the PROG button 2 times. TIME CLOCK and PROG indicators will be illuminated in the screen and OFF indicator will be flashing in the screen.
2. Press the button. **TIME CLOCK** and **PROG** indicators are still illuminated. **ON** indicator will be flashing in the screen, replacing **OFF**.

3. Press the **EXIT** button. **TIME CLOCK** indicator will re-appear in the screen, indicating that the Time Clock has been re-activated.

## 11. After Hours

### NOTES
- For the After Hours run timer to operate, the unit should be turned On (via CP05/CP10 Control Interface) and the Time Clock operation has to be enabled.
- If the After Hours run timer overlaps with the Time Clock start time, the unit will continue running with After Hours indicator displayed on the screen.
- If the After Hours run timer expires earlier than the current Time Clock, the unit will continue running to the end of the current Time Clock operation.

### Turning-On After Hours Function

1. To start the air conditioner for a preset time outside of normal operating hours, Press the **AFTER HRS** button. **AFTER HOURS** indicator will appear and the **TIME CLOCK** indicator will be blinking. Alternatively, you can press the **button**, if no scheduled event is On.

2. Press the **↑** or **↓** buttons to adjust the After Hours run timer duration. The After Hours run timer duration can be adjusted by 0.5 hour increment.

3. Press the **AFTER HRS** button to lock-in your desired After Hours run timer duration.

### NOTES
- The screen will revert back to default display with **AFTER HOURS** indicator illuminated and the **TIME CLOCK** indicator will disappear.
- The air conditioning system will also turn back-on, after which it will turn-off at the completion of After Hours run timer duration.
- To cancel After Hours operation before the timer expiration, press the **button**.
- The system saves the set After Hours timer. Simply press the **AFTER HRS** button (or the **button**) to activate the After Hours in the future.

### Important NOTES
- The After Hour default time is set to 2.0 hours.
- The user can adjust the setting from 0.5 hour (minimum) to 2.0 hours (maximum).
- Adjustments can be done in increments of 0.5 hour.
12. **Filter timer**

![Filter timer image]

**Setting The Filter Timer**

1. Press and hold the **FAN** button. Press the **PROG** button and release them altogether. Menu **01** will be displayed with **PROG** indicator flashing.

2. Press the **button repeatedly until menu number **03** is displayed.

3. Press the **PROG** button to enter menu **03**. Display will show the current filter run-hour timer. **TIMER**, **PROG** and **FILTER** indicators will be illuminated.

4. Press the ** or ** buttons to set your preferred filter run-hour timer. Timer can be set from 100 to 900 hours with time increments of 10 hours.

5. Press **EXIT** button twice to go back to Main screen.

**Filter Notification Cancellation**

Press the **button to reset Filter Notification.
13. Dual control operation

13.01. Mimic Control

Mimic Control Operation

- The air conditioning system can be operated from either of two control interfaces.
- Information displayed on the control interfaces are identical (Valid for CP05/CP10 only).
- Last control interface used has the priority.

Example 1:

Using Control Interface #1, the cooling operation is started, both control interfaces will now show the system is in cooling mode. If another person uses Control Interface #2 to select heating mode, the system will now change to heating operation and both controls will display that the system is in heating mode.

Example 2:

Using Control Interface #2, the room setpoint temperature is set at 16.0°C, both control interfaces will now show that the room setpoint temperature is at 16.0°C. If another person uses Control Interface #1 to change the setpoint temperature to 18.0°C, the system will now be operating at the new room setpoint temperature and both controls will display the same setpoint temperature.

NOTES

1. Only 1 CL01-2 Control Interface can be connected to each individual air conditioning unit.
2. CP05 Control Interface is factory supplied and fitted to outdoor unit/section electrical panel.

<table>
<thead>
<tr>
<th>Combination Options</th>
<th>Control Interface 1</th>
<th>Control Interface 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>ActronAir CP05 or CP10</td>
<td>ActronAir CL01-2</td>
</tr>
<tr>
<td>Option 2</td>
<td>ActronAir CP05 or CP10</td>
<td>ActronAir CP05 or CP10</td>
</tr>
<tr>
<td>Option 3</td>
<td>ActronAir CL01-2 or CP05 or CP10</td>
<td>BMS Controller</td>
</tr>
</tbody>
</table>
## 14. Alarm Matrix

### INDOOR BOARD FAULT ERROR CODES

<table>
<thead>
<tr>
<th>Alarm Code</th>
<th>Description</th>
<th>Type</th>
<th>Alarm Condition</th>
<th>Reset Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2</td>
<td>Indoor Coil Sensor Error (OC/SC)</td>
<td>Alarm</td>
<td>Coil Sensor OC/SC</td>
<td>Sensor OK</td>
</tr>
<tr>
<td>E3</td>
<td>Over Current</td>
<td>Alarm</td>
<td>Input out of Range</td>
<td>Normal Operation</td>
</tr>
<tr>
<td></td>
<td>Under Current</td>
<td>Alarm</td>
<td>Indoor Fan not running</td>
<td>Normal Operation</td>
</tr>
<tr>
<td>E4</td>
<td>Wrong Dip switch Error</td>
<td>Alarm</td>
<td>No communication with OD</td>
<td>Correct Settings</td>
</tr>
<tr>
<td>E5</td>
<td>Communication Error</td>
<td>Alarm</td>
<td>No communication with OD</td>
<td>Communication OK</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>NOTE:</strong> Wait for 30 sec. before E5 is displayed.</td>
<td></td>
</tr>
<tr>
<td>E6</td>
<td>Indoor Fan Fault</td>
<td>Alarm</td>
<td>Not Operating</td>
<td>Normal Operation</td>
</tr>
<tr>
<td>E7</td>
<td>0-10VDC No Input</td>
<td>Alarm</td>
<td>Input is less than 0.1V when 3rd Party voltage control is selected on ID</td>
<td>Correct 0-10VDC Input</td>
</tr>
<tr>
<td>E8</td>
<td>Reserved for Other Errors</td>
<td>Alarm</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>E9</td>
<td>Reserved for Other Errors</td>
<td>Alarm</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
## CM100 Fault Error Codes

<table>
<thead>
<tr>
<th>Alarm Code</th>
<th>Description</th>
<th>Type</th>
<th>Alarm Condition</th>
<th>Reset Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>E10</td>
<td>All Other Alarms (See CP05 or CP10 for details)</td>
<td>Alarm</td>
<td>Various Alarms</td>
<td>Normal Condition</td>
</tr>
<tr>
<td>E11</td>
<td>Probe 1 Fault (CM100 Internal Error)</td>
<td>Alarm</td>
<td>Configuration Error</td>
<td>Correct Set up</td>
</tr>
<tr>
<td>E12</td>
<td>ID Coil Sensor 1 Fault</td>
<td>Alarm</td>
<td>Temperature out of Range</td>
<td>Temperature Normal</td>
</tr>
<tr>
<td>E13</td>
<td>Probe 3 Fault (CM100 Internal Error)</td>
<td>Alarm</td>
<td>Configuration Error</td>
<td>Correct Set up</td>
</tr>
<tr>
<td>E14</td>
<td>Probe 4 Fault (CM100 Internal Error)</td>
<td>Alarm</td>
<td>Configuration Error</td>
<td>Correct Set up</td>
</tr>
<tr>
<td>E15</td>
<td>Discharge Temperature 1 / High Pressure Comp 1 Fault</td>
<td>Alarm</td>
<td>Temperature out of Range</td>
<td>Temperature and Pressure Normal</td>
</tr>
<tr>
<td>E16</td>
<td>OD Coil Sensor 1 Fault</td>
<td>Alarm</td>
<td>Temperature out of Range</td>
<td>Temperature Normal</td>
</tr>
<tr>
<td>E17</td>
<td>Discharge Temperature 2 / High Pressure Comp 2 Fault</td>
<td>Alarm</td>
<td>Temperature out of Range</td>
<td>Temperature and Pressure Normal</td>
</tr>
<tr>
<td>E18</td>
<td>OD Coil Sensor 2 Fault</td>
<td>Alarm</td>
<td>Temperature out of Range</td>
<td>Temperature Normal</td>
</tr>
<tr>
<td>E19</td>
<td>Probe 9 Fault (CM100 Internal Error)</td>
<td>Alarm</td>
<td>Configuration Error</td>
<td>Correct Set up</td>
</tr>
<tr>
<td>E20</td>
<td>Outside Air Temperature Sensor Fault</td>
<td>Warning</td>
<td>Temperature out of Range</td>
<td>Temperature OK</td>
</tr>
<tr>
<td>E21</td>
<td>Multi Input 1 Fault</td>
<td>Alarm</td>
<td>Input out of Range</td>
<td>Input Normal</td>
</tr>
<tr>
<td>E22</td>
<td>Multi Input 2 Fault</td>
<td>Alarm</td>
<td>Input out of Range</td>
<td>Input Normal</td>
</tr>
<tr>
<td>E23</td>
<td>Outdoor Fan 1 Fault</td>
<td>Alarm</td>
<td>Not Operating</td>
<td>Normal Operation</td>
</tr>
<tr>
<td>E24</td>
<td>Outdoor Fan 2 Fault</td>
<td>Alarm</td>
<td>Not Operating</td>
<td>Normal Operation</td>
</tr>
<tr>
<td>E25</td>
<td>Indoor Fan Fault</td>
<td>Alarm</td>
<td>Not Operating</td>
<td>Normal Operation</td>
</tr>
<tr>
<td>E26</td>
<td>Return Air Temperature Sensor Fault</td>
<td>Warning</td>
<td>Temperature out of Range</td>
<td>Temperature OK</td>
</tr>
<tr>
<td>E27</td>
<td>Supply Air Temperature Sensor Fault</td>
<td>Warning</td>
<td>Temperature out of Range</td>
<td>Temperature OK</td>
</tr>
<tr>
<td>E28</td>
<td>Indoor Fan Overload Fault</td>
<td>Alarm</td>
<td>Circuit Breaker Tripped</td>
<td>Normal Operation</td>
</tr>
<tr>
<td>E29</td>
<td>Compressor 1 Overload Fault</td>
<td>Alarm</td>
<td>Circuit Breaker Tripped</td>
<td>Normal Operation</td>
</tr>
<tr>
<td>E30</td>
<td>Compressor 2 Overload Fault</td>
<td>Alarm</td>
<td>Circuit Breaker Tripped</td>
<td>Normal Operation</td>
</tr>
<tr>
<td>E31</td>
<td>Compressor 1 LP Fault</td>
<td>Alarm</td>
<td>Compressor 1 Low Pressure</td>
<td>Normal Pressure</td>
</tr>
<tr>
<td>E32</td>
<td>Compressor 2 LP Fault</td>
<td>Alarm</td>
<td>Compressor 2 Low Pressure</td>
<td>Normal Pressure</td>
</tr>
<tr>
<td>E33</td>
<td>Compressor 3 LP Fault</td>
<td>Alarm</td>
<td>Compressor 3 Low Pressure</td>
<td>Normal Pressure</td>
</tr>
<tr>
<td>E34</td>
<td>Compressor 1 HP Fault</td>
<td>Alarm</td>
<td>Compressor 1 High Pressure</td>
<td>Normal Pressure</td>
</tr>
</tbody>
</table>
## CM100 FAULT ERROR CODES

<table>
<thead>
<tr>
<th>Alarm Code</th>
<th>Description</th>
<th>Type</th>
<th>Alarm Condition</th>
<th>Reset Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>E35</td>
<td>Compressor 2 HP Fault</td>
<td>Alarm</td>
<td>Compressor 2 High Pressure</td>
<td>Normal Pressure</td>
</tr>
<tr>
<td>E36</td>
<td>Compressor 3 HP Fault</td>
<td>Alarm</td>
<td>Compressor 3 High Pressure</td>
<td>Normal Pressure</td>
</tr>
<tr>
<td>E37</td>
<td>Compressor 1 LP Fault</td>
<td>Alarm</td>
<td>3 Trips within 1 Hour</td>
<td>Re-cycle Power and Pressure Normal</td>
</tr>
<tr>
<td>E38</td>
<td>Compressor 2 LP Fault</td>
<td>Alarm</td>
<td>3 Trips within 1 Hour</td>
<td>Re-cycle Power and Pressure Normal</td>
</tr>
<tr>
<td>E39</td>
<td>Compressor 3 LP Fault</td>
<td>Alarm</td>
<td>3 Trips within 1 Hour</td>
<td>Re-cycle Power and Pressure Normal</td>
</tr>
<tr>
<td>E40</td>
<td>Compressor 1 HP Fault</td>
<td>Alarm</td>
<td>3 Trips within 1 Hour</td>
<td>Re-cycle Power and Pressure Normal</td>
</tr>
<tr>
<td>E41</td>
<td>Compressor 2 HP Fault</td>
<td>Alarm</td>
<td>3 Trips within 1 Hour</td>
<td>Re-cycle Power and Pressure Normal</td>
</tr>
<tr>
<td>E42</td>
<td>Compressor 3 HP Fault</td>
<td>Alarm</td>
<td>3 Trips within 1 Hour</td>
<td>Re-cycle Power and Pressure Normal</td>
</tr>
<tr>
<td>E43</td>
<td>Discharge Temp 1 Fault</td>
<td>Alarm</td>
<td>Temperature out of Range</td>
<td>Temperature OK</td>
</tr>
<tr>
<td>E44</td>
<td>Discharge Temp 2 Fault</td>
<td>Alarm</td>
<td>Temperature out of Range</td>
<td>Temperature OK</td>
</tr>
<tr>
<td>E45</td>
<td>Discharge Temp 3 Fault</td>
<td>Alarm</td>
<td>Temperature out of Range</td>
<td>Temperature OK</td>
</tr>
<tr>
<td>FILTER</td>
<td>Filter Alarm</td>
<td>Alarm</td>
<td>Air Filter Timer Timed-Out</td>
<td>Clean/Replace Filter and Reset Timer</td>
</tr>
</tbody>
</table>

**Important NOTE**

All alarm fault conditions must be investigated and rectified before proceeding to reset or clear the alarm. If the cause of the fault condition has not been eliminated, the alarm fault conditions will be reported and logged in again on next data cycle. Repeated resetting and restarting can cause damage to the unit and may render your warranty null and void.
15. **Near Field Communication (NFC) Tag**

CL01-2 is 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.

**15.01. iOS Users**

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

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Go to App Store and download <strong>NFC Reader for iPhone</strong>.</td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="NFC Reader for iPhone" /></td>
<td></td>
</tr>
<tr>
<td>2. Open NFC App. Read through NFC App Information and Click on <strong>Let’s get started</strong>.</td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="NFC Reader App" /></td>
<td></td>
</tr>
<tr>
<td>3. Place the mobile device close to <strong>NFC Tag</strong> on the controller. Follow the instructions on App.</td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="NFC Tag" /></td>
<td></td>
</tr>
<tr>
<td>4. Once the tag has successfully scanned the image below will appear.</td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="NFC Scan" /></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Redirect" /></td>
<td></td>
</tr>
<tr>
<td>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. The Model number of your controller can be found underneath the Power On/Off button of the controller.</td>
<td></td>
</tr>
</tbody>
</table>
15.02. **Android Users**

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

1. Go to **Settings** and look for **NFC and payment**. Tap **ON** to activate NFC.

2. Tap **Android Beam**

3. Follow the on-screen instructions.


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. The Model number of your controller can be found underneath the Power On/Off button of the controller.
## 16. Troubleshooting Guide

<table>
<thead>
<tr>
<th>Condition</th>
<th>Causes or Check Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system does not start</td>
<td>Check that 5 minutes has passed from Turn-On time, as the system has in built timers. Check that setpoint temperature settings are correct. Check that the setpoint temperature is set low enough for cooling or high enough for heating.</td>
</tr>
<tr>
<td>Air does not flow (Indoor Unit)</td>
<td>During heating operation, air does not flow out for approximately 15 seconds after start up, this prevents cold draft. Check for Auto Fan operation.</td>
</tr>
<tr>
<td>Cooling/Heating is not sufficient</td>
<td>The cooling/heating function may not work effectively when the indoor return air filter is clogged with dust and dirt. Make sure the air inlet and air outlet on the outdoor unit are not blocked. The outside temperature is above or below the design conditions.</td>
</tr>
<tr>
<td>Steam is coming out from the outdoor unit</td>
<td>It is caused by the defrosting of the outdoor unit in heating operation during cold ambient conditions. This is not a fault.</td>
</tr>
<tr>
<td>Water from the outdoor unit</td>
<td>This is normal during heating operation, which is due to water forming and running off the outdoor coil during defrost. This normal and it is not a fault.</td>
</tr>
<tr>
<td>Occurring of noises</td>
<td>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 the indoor units. A swooshing 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 while the compressor reaches the designated speed and operating pressure. During defrost operation, the compressor may generate more noise than normal.</td>
</tr>
<tr>
<td>Setpoint temperature cannot be adjusted</td>
<td>The Control Interface has in built upper and lower limit setting. Setpoint temperature can only be adjusted within these limits.</td>
</tr>
<tr>
<td>7-Day Time Clock is not turning the air conditioner On and Off</td>
<td>Check that the time clock events are set correctly. Check that correct current day and time are set for the air conditioner to operate.</td>
</tr>
</tbody>
</table>

BEFORE CONTACTING YOUR INSTALLER, PLEASE HAVE YOUR AIR CONDITIONERS MODEL NO. AND SERIAL NO. WITH YOU. (SEE PAGE 5)
<table>
<thead>
<tr>
<th>Condition</th>
<th>Probable Cause</th>
<th>Recommended Actions/ Checkpoints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporator coil freezes up during low ambient operation</td>
<td>System low on refrigerant. System low on airflow. Outdoor air sensor failure.</td>
<td>Check the pressures and the temps for suction and discharge. Check the ID fan speed through the Control Interface. Check the Alarm on the Control Interface. Check for dirty filters.</td>
</tr>
<tr>
<td>Economiser, outside air and/or spill air will not operate</td>
<td>Economiser connector not plugged into unit wiring harness Economiser, outside air, and/or spill air motor has failed. Wiring or terminal failure</td>
<td>Check the connection. Damper motor wiring needs to be checked and replaced as required. Wiring or terminal to be checked and replaced as required. Check if Economy Mode is enabled.</td>
</tr>
<tr>
<td>Control Interface buttons not operating</td>
<td>Control Interface not responding. Data cable failure.</td>
<td>Reset the power to the Control Interface by turning it Off/On. Replace data cable through service.</td>
</tr>
<tr>
<td>Control Interface does not power up</td>
<td>Wiring fault. Data cable fault.</td>
<td>Wiring to be checked as per the wiring diagram. Replace data cable through service.</td>
</tr>
</tbody>
</table>