USER MANUAL

LENNOX™

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Your new LENNOX Thermostat has been designed to provide accurate control and display of room temperature. In addition, it will also display all relevant information pertaining to your system.

The clearly marked buttons and informative display make it extremely easy to understand and simple to use. Please take a few moments to read the brief instructions and familiarise yourself with the various functions in order to obtain maximum benefit from this truly unique electronic control.

This electronic control is organised into two integrated systems: a terminal, installed in the room, and a power board for managing the actuators in the electrical panel. The terminal is connected to the power board using a four-lead cable, thus greatly simplifying installation, with shield cable (supplied with the unit).

⚠️ **IMPORTANT** **Prior of making the electrical connections, set the switch for heat pump unit or for cooling only unit.**
NOT USED FOR CASSETTE UNITS. (See documentation for the unit)

This unit is valid for operating as a cold only or heat pump application. The unit should be configured prior to making the electrical connections, by setting the configuration switch as follows:

COOLING ONLY
(factory setting)

J_MODE

HEAT PUMP

J_MODE

P.C.B.
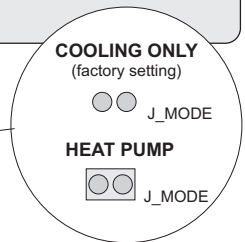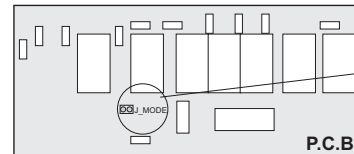
TERMINAL-THERMOSTAT INSTALLATION

For correct installation the following warnings must be heeded:
• Always disconnect the power supply before performing any operations on the board during assembly, maintenance or replacement.
• The terminal should be fastened to the wall vertically, allowing for air to circulate through the instrument's vent-holes, in order to detect the correct ambient temperature
• Avoid places where the measurement of the ambient temperature by the internal sensor may be altered, such as outside walls, near doors leading outside, in direct sunlight, etc.

⚠️ **INSTALLATION GUIDE FOR CONTROL CABLE (TO AVOID INTERFERENCES):**
• Use the screened 15 m cable supplied with terminal (3 wires + screen).
• Wire the cable separated from electrical power wiring by a physical distance of 500 mm.
• Wire the cable separated from halogen lamps/fluorescent tube lighting... by a physical distance of 500 mm.
• Wire the cable separated from radio frequency sources such as radio transmitter... at least 500 mm.
NEVER WIND THE REMAINING CABLE AROUND, CUT THE CABLE BY THE TERMINAL END.

TERMINAL INSTALLATION

The installation procedure is as following:
1º To detach the front panel of the terminal from the rear shell, insert a flat-head screwdriver in the slot in the centre of the bottom of the box and release the locking flap.
2º Raise the front panel using a "hinge" movement, using the upper edge of the instrument as the pivot and raising the lower edge.
3º To fasten the rear part of the box to the wall, use the mounting holes on the shell.

Sub-base

Terminal-Thermostat
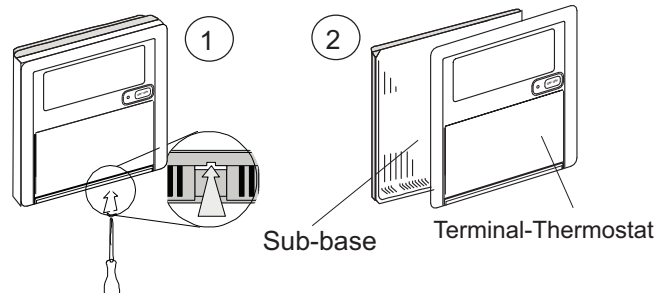
4º Connect the cables to the terminals on the electrical box, as indicated in electrical diagram.
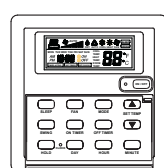
Cable supplied with the unit Maximum length allowed is 15m
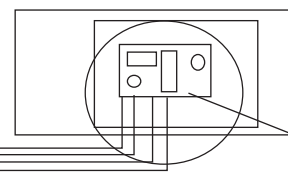
UNIT

Power board

5º Finally, close the instrument, moving the front panel onto the rear shell with a "hinge" movement, in the opposite way as used for opening. First the long side of the front panel near the display is snapped onto the rear shell, then the opposite side, being careful that the terminal pins slide into their corresponding female terminals.

USER INTERFACE DESCRIPTION

Key Lock Display

Display indicates when key lock function is activated.

Fan Speed Display

Displays the fan speed setting.
(Auto/High/Medium/Low)

Sleep Display

Display the sleep / energy saving status.

Alarm indicator

Operation Mode Display
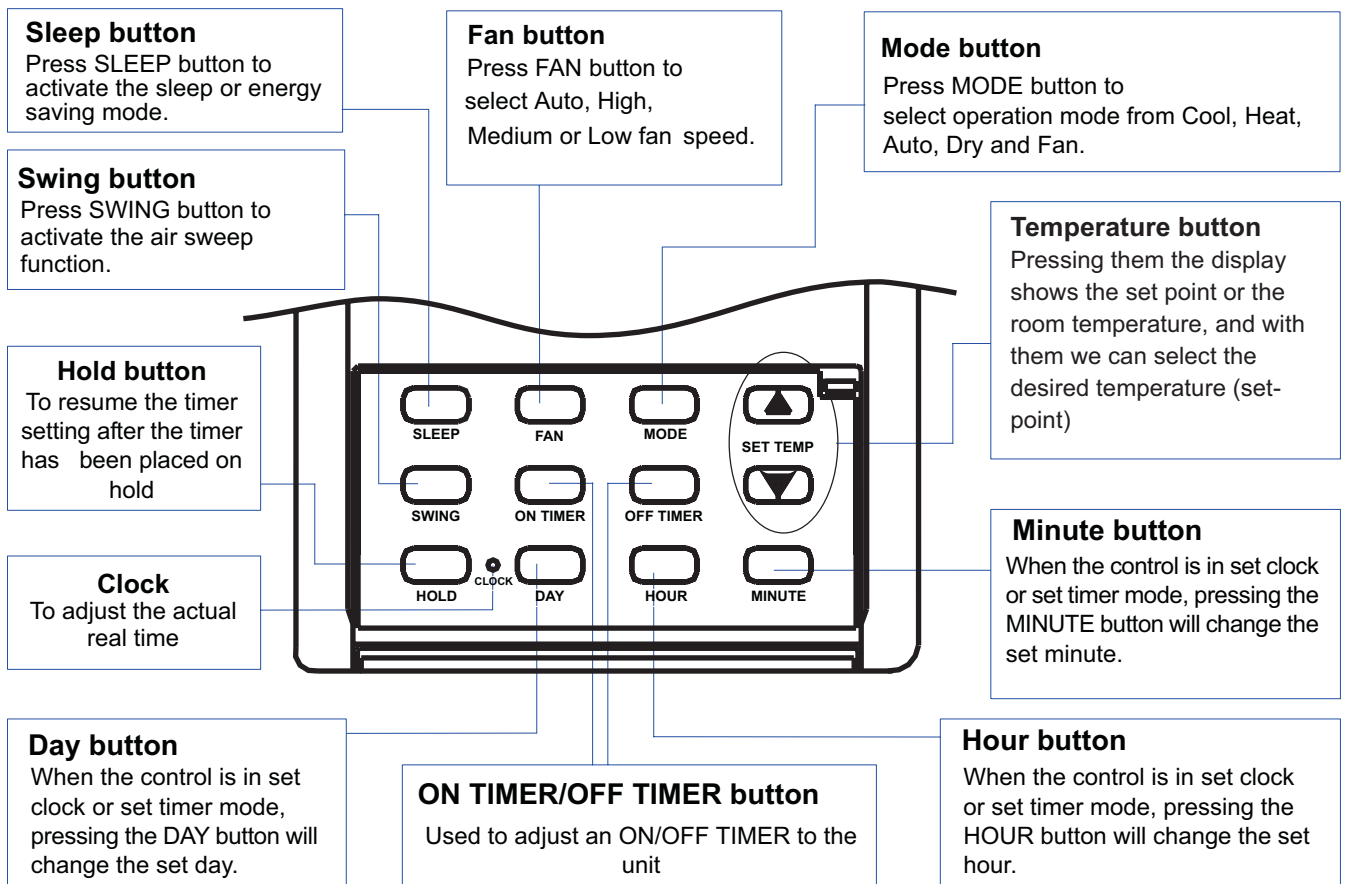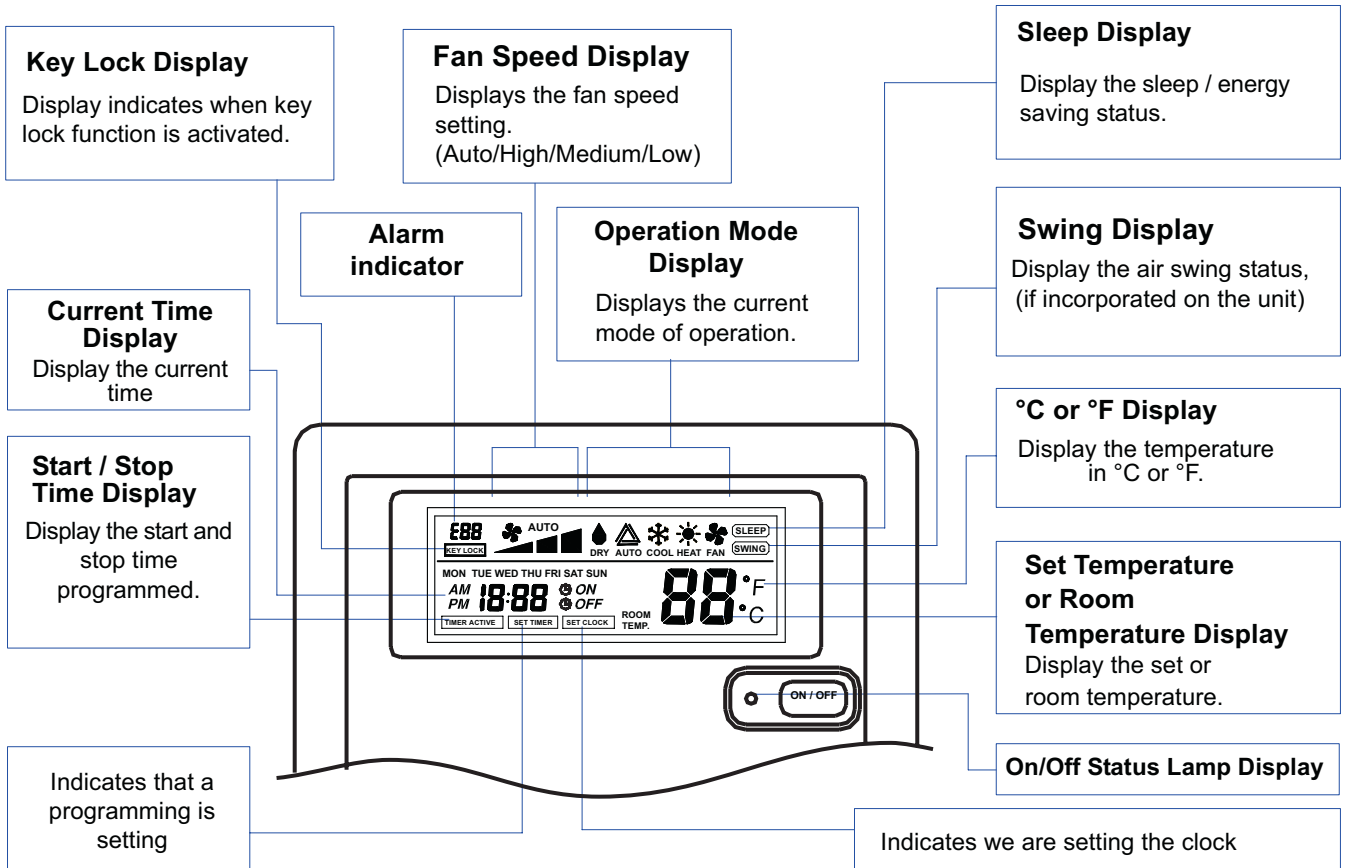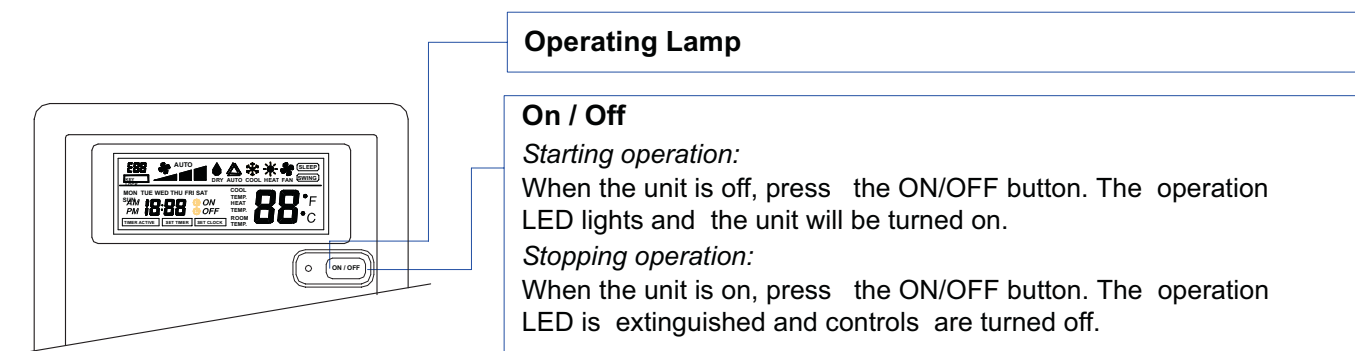
Displays the current mode of operation.

Swing Display

Display the air swing status, (if incorporated on the unit)

Current Time Display

Display the current time

°C or °F Display

Display the temperature in °C or °F.

Start / Stop Time Display

Display the start and stop time programmed.

Set Temperature or Room Temperature Display

Display the set or room temperature.

Indicates that a programming is setting

On/Off Status Lamp Display

Indicates we are setting the clock

Sleep button
Press SLEEP button to activate the sleep or energy saving mode.

Fan button
Press FAN button to select Auto, High, Medium or Low fan speed.

Mode button
Press MODE button to select operation mode from Cool, Heat, Auto, Dry and Fan.

Swing button
Press SWING button to activate the air sweep function.

Temperature button
Pressing them the display shows the set point or the room temperature, and with them we can select the desired temperature (set-point)

Hold button
To resume the timer setting after the timer has been placed on hold

Minute button
When the control is in set clock or set timer mode, pressing the MINUTE button will change the set minute.

Clock
To adjust the actual real time

Day button
When the control is in set clock or set timer mode, pressing the DAY button will change the set day.

ON TIMER/OFF TIMER button
Used to adjust an ON/OFF TIMER to the unit

Hour button
When the control is in set clock or set timer mode, pressing the HOUR button will change the set hour.

SELECTING UNIT OPERATING MODE AND SET-POINT TEMPERATURE

A) HOW TO TURN ON/OFF THE UNIT

Operating Lamp

On / Off

Starting operation:
When the unit is off, press   the ON/OFF button. The operation LED lights and the unit will be turned on.

Stopping operation:
When the unit is on, press   the ON/OFF button. The operation LED is extinguished and controls are turned off.

B) SELECTING THE UNIT'S OPERATING MODE

The operating mode is always indicated on the display

Pressing the **mode** button repeatedly you can change the unit operating mode, and choose the one desired:

Cool   Heat   Auto   Dry   Fan

COOL: The unit is working on cooling mode, when compressor is working ❄ symbol will appear on the display

HEAT: The unit is working on heating mode, when compressor or electrical heater is working ☀ symbol will appear on the display

AUTO: The system automatically switches from cooling to heating mode, depending on the position of the ambient temperature in respect to the set-point, the symbol △ will appear on the display and also the symbols ☀ or ❄ depends on the operating mode selected

DRY: The symbol ● will appear on the display

FAN: Fan control only; when fan is working the symbol ❖ will appear

C) SELECTING DESIRED ROOM TEMPERATURE (SET-POINT)

If unit is working, the ▲ or ▼ *buttons* allow to select the desired room temperature (set-point)

When the button ▲ or ▼ are pressed one, the display will show the selected desired temperature (set-point) during 5 seconds, after that the display will show the room temperature

The button ▲ allow the increase of the current set-point by 1ºC/1ºF

The button ▼ allow the decrease of the current set-point by 1ºC/1ºF

The temperature range is from 16ºC/60ºF to 30ºC/85ºF

To change from ºC to ºF or vice versa, press the buttons ▲ y ▼   at the same time

NOTE: If we have selected FAN as the unit operating mode, the SET POINT can not be modified
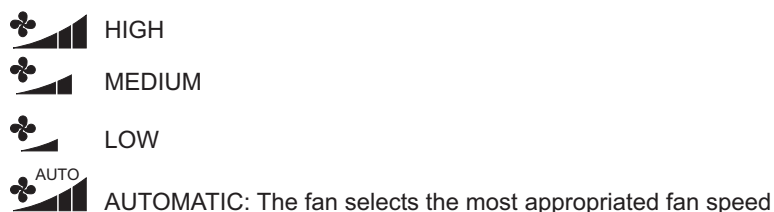
D) SELECTING THE FAN OPERATING MODE

To be able to select a fan operating mode, cool, heat or auto unit's operating mode must be selected.
If DRY mode have been selected the fan operating mode can not be selected.
If Fan mode have been selected the automatic fan operating mode can not be selected

Pressing ⬭ button scrolls through the following modes, and we can selected the one desired

❖ HIGH

❖ MEDIUM

❖ LOW

❖ AUTOMATIC: The fan selects the most appropriated fan speed

NOTE: Even when a low speed have been selected on heating mode, the unit self protective changing automatically to a higher fan speed, when the unit is working at high temperatures.
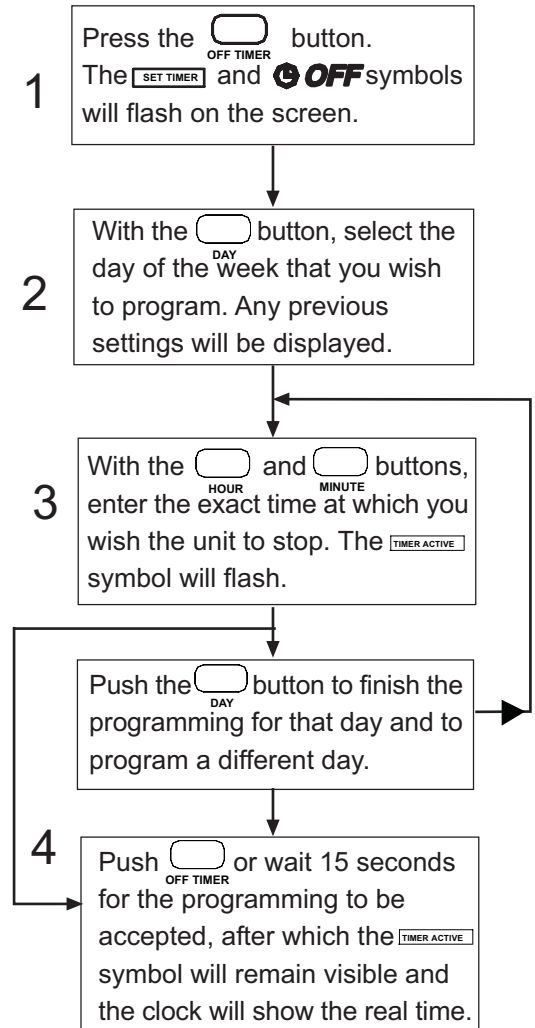
SETTING THE TIMER

Our electronic climate control with timer operation is a programmable terminal.
With this terminal you can program the unit to stop and start on each of the 7 days of the week.
The ON TIMER and OFF TIMER functions may be combined.
To set the timer, follow the instructions given below:

PROGRAMMING THE UNIT TO START (ON TIMER)
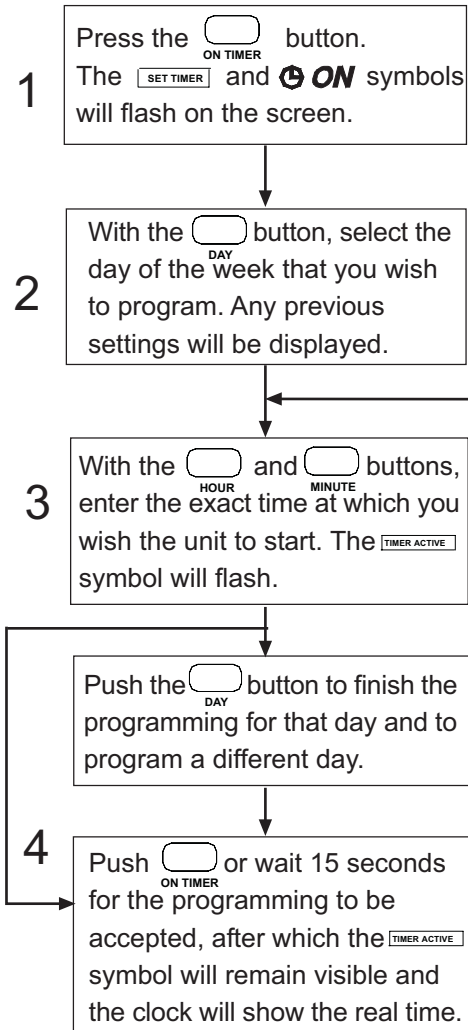
Mo (Monday)
Tu (Tuesday)
We (Wednesday)
Th (Thursday)
Fr (Friday)
Sa (Saturday)
Su (Sunday)

PROGRAMMING THE UNIT TO STOP (OFF TIMER)

1 Press the ⬭ ON TIMER button. The SET TIMER and 🕐 ON symbols will flash on the screen.

2 With the ⬭ DAY button, select the day of the week that you wish to program. Any previous settings will be displayed.

3 With the ⬭ HOUR and ⬭ MINUTE buttons, enter the exact time at which you wish the unit to start. The TIMER ACTIVE symbol will flash.

4 Push the ⬭ DAY button to finish the programming for that day and to program a different day.

4 Push ⬭ ON TIMER or wait 15 seconds for the programming to be accepted, after which the TIMER ACTIVE symbol will remain visible and the clock will show the real time.

With the ON TIMER function, the unit will automatically start at the selected time, in the same operating mode as when it was switched off.

1 Press the ⬭ OFF TIMER button. The SET TIMER and 🕐 OFF symbols will flash on the screen.

2 With the ⬭ DAY button, select the day of the week that you wish to program. Any previous settings will be displayed.

3 With the ⬭ HOUR and ⬭ MINUTE buttons, enter the exact time at which you wish the unit to stop. The TIMER ACTIVE symbol will flash.

4 Push the ⬭ DAY button to finish the programming for that day and to program a different day.

4 Push ⬭ OFF TIMER or wait 15 seconds for the programming to be accepted, after which the TIMER ACTIVE symbol will remain visible and the clock will show the real time.

NOTE:
If the TIMER ACTIVE symbol does not remain visible on the screen, the control has not stored the settings.

HOW TO DEACTIVATE THE ON TIMER / OFF TIMER FUNCTION

To deactivate the settings and store them for future use:
Press the ⬭ HOLD button for 3 seconds, until the TIMER ACTIVE indication disappears.
To activate them once again, press the ⬭ HOLD button for 3 seconds once again, until the TIMER ACTIVE indication appears

HOW TO DELETE THE ON TIMER / OFF TIMER FUNCTION

Push the ⬭ ON TIMER button.
Push the ⬭ DAY button and select the day of the week that you wish to delete from the settings.
Push the ⬭ HOUR button as many times as necessary until - : - - appears, showing that the setting for that day has been deleted.

HOUR ADJUSTMENT

Press button cLOCK once to set the clock mode, the indication [SET CLOCK] will appear on the display blinking

Press button (DAY) repeatedly, scrolls through the following days of the week, and we can selected the one desired

Press button (HOUR) to set the hour

Press button (MINUTE) to set the minutes

Press button cLOCK to accept

$\overset{\text{MON}}{}$ TUE WED THU FRI SAT SUN

The unit is supplied with a lithium battery acting as a power back up in the case of a power failure. The real time clock and other settings are maintained during the power failure and reset when power is restored.

SLEEP

Pressing the button (SLEEP), we activate this function. It is registered on the display with the symbol (SLEEP)

COOLING MODE
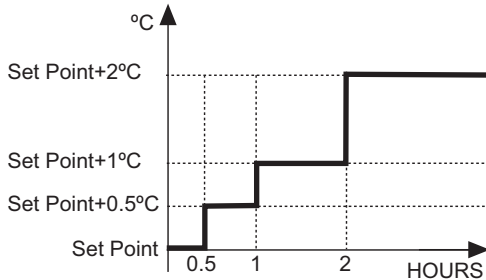
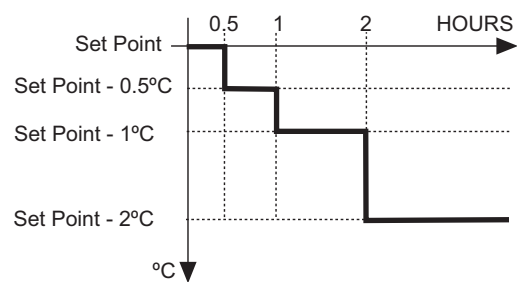HEATING MODE

SLEEP FUNCTION ON
Increase the set point temperature as the above drawing shows

SLEEP FUNCTION ON
Decrease the set point temperature as the above drawing shows

FUNCTION SWING

Press button (SWING), the function swing gets activated, the symbol (SWING) will appear on the LCD display

KEY LOCK

This feature protects the controls from being tampered with by children or unauthorized persons.

To activate, press the (MINUTE) button three times consecutively, [KEY LOCK] symbol will appear on the LCD display. During this time, only (ON / OFF) button can be used.

To cancel this feature, press the (MINUTE) button again three times consecutively. and the indication [KEY LOCK] will disappear on the display

ALARM CODES

The unit self-protect through safety devices, when any of these safety devices detect an anomaly, shown in the display in order to advise the installer.

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E88
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The activation of an alarm brings about:
- The display of the alarm code on the display.
- The blocking of some or all the outputs, depending on the type of alarm.

VIS (Visualization): Indicates the type of alarm shown on the display.
RE (Reset): Type of reset:

        AUT: AUTOMATIC RESET: Some alarms are automatically reset, when the cause is no longer present, they disappear from the display.

        MAN: MANUAL RESET: Press "ON/OFF" button.

VIS.	DESCRIPTION	EFFECTS	ACTION	RE
E01	Ambient temperature regulation probe error.	Unit will stop	Check connections between unit and thermostat.	AUT
E02	Indoor coil temperature probe error.	Compressor will stop	Check connections of indoor coil temperature probe.	AUT
E04	Compressor overload. During heating cycle the indoor coil temperature has been too high.	Compressor will stop	These protections are automatic reset for the first time. To reset for second time press button "ON/OFF" until alarm disappears. If the alarm shows up again, check: Connections of indoor coil temperature probe. Indoor unit works properly. Clean air filters.	AUT/ MAN
E06	Overflow of water condensing. The float switch has detected water overflow.	Compressor will stop. Condensate pump working.	These protections are automatic reset, the alarm resets automatically when there is no more water. If the alarm shows again, check the water drain, and the connections of float switch.	AUT

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88
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VIS.	DESCRIPTION	EFFECTS	ACTION	RE
SH	Short circuited temperature probe.	Unit will stop	Check probe connection.	AUT
OP	Temperature probe open.	Unit will stop	Check probe connection.	AUT

WARNINGS

VIS.	DESCRIPTION	EFFECTS
LO	Probe temperature lower than 8ºC.	The unit is working, and the warning disappears when temperature is between 8ºC and 37ºC.
HI	Probe temperature higher than 37ºC.	

UNIT PROTECTION DEVICES

AGAINST FREQUENT COMPRESSOR CYCLING
  When COOL/HEAT/AUTOMATIC is selected, the start up of the unit will be delayed for 3 minutes, to protect the unit against frequent compressor cycling.

AIR PREHEATING
  On heat mode, the indoor unit fan will not start or will start at low speed, to prevent from air cool feeling, until the indoor unit temperature reaches the set temperature then the unit will operate to the selected temperature.

DEFROST CYCLE
  When the unit is operating on heating mode, the unit will do defrost to eliminate the ice that will produce the outdoor unit; on this cycle, the indoor unit fan switches off.

AUTO RESTART
  If power failure occurs during operation, the unit will start in the same operation mode as before after power recovery.

FREEZE-UP PROTECTION
  If the unit is operating on cooling only mode, and the indoor unit coil temperature is below a set value, the unit stops.

DETECTING BROKEN SENSOR
  If the control system detects a sensor reading out of permissible deviation, the unit stops.

LENNOX

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