LENNOX®

INSTALLATION OPERATING & MAINTENANCE MANUAL

PROVISIONAL

PROVIDING GLOBAL SYSTEM SOLUTIONS

CLIMATIC 50 for FLEXY

English
May 2004

IOM MANUAL

Ref. FLEXY-IOM-CL50-P-0504-E

The present manual applies to the following ROOFTOP versions :

FCA 60 - FCA 70 - FCA 85 - FCA 100 - FCA 120 - FCA 140 - FCA 160 - FCA 190
FCK 60 - FCK 70 - FCK 85 - FCK 100 - FCK 120 - FCK 140 - FCK 160 - FCK 190
FHA 60 - FHA 70 - FHA 85 - FHA 100 - FHA 120 - FHA 140 - FHA 160 - FHA 190
FHK 60 - FHK 70 - FHK 85 - FHK 100 - FHK 120 - FHK 140 - FHK 160 - FHK 190
FDA 60 - FDA 70 - FDA 85 - FDA 100 - FDA 120 - FDA 140 - FDA 160 - FDA 190
FDK 60 - FDK 70 - FDK 85 - FDK 100 - FDK 120 - FDK 140 - FDK 160 - FDK 190
FGA 60 - FGA 70 - FGA 85 - FGA 100 - FGA 120 - FGA 140 - FGA 160 - FGA 190
FGK 60 - FGK 70 - FGK 85 - FGK 100 - FGK 120 - FGK 140 - FGK 160 - FGK 190

FXA 25 - FXA 30 - FXA 35 - FXA 40 - FXA 55 - FXA 70 - FXA 85 - FXA 100 - FXA 110 - FXA 140 - FXA 170
FXK 25 - FXK 30 - FXK 35 - FXK 40 - FXK 55 - FXK 70 - FXK 85 - FXK 100 - FXK 110 - FXK 140 - FXK 170

NOTES FOR UNIT FITTED WITH GAS BURNER:

THE UNIT MUST BE INSTALLED IN ACCORDANCE WITH LOCAL SAFETY CODES AND REGULATIONS AND CAN ONLY BE USED IN WELL VENTILLATED AREA.

PLEASE READ CAREFULLY THE MANUFACTURER'S INSTRUCTIONS BEFORE STARTING THIS UNIT.

THIS MANUAL IS ONLY VALID FOR UNITS DISPLAYING THE FOLLOWING CODES: **GB** **IR** **GR** **DA** **NO** **FI** **IS**

In case these symbols are not displayed on the unit, please refer to the technical documentation which will eventually detail any modifications required to the installation of the unit in a particular country.

LENNOX have been providing environmental solutions since 1895, our range of Baltic ™ rooftop continues to meet the standards that have made LENNOX a household name. Flexible design solutions to meet YOUR needs and uncompromising attention to detail. Engineered to last, simple to maintain and Quality that comes as standard. Information on local contacts at www.lennoxeurope.com.

The technical information and specifications contained in this manual are for reference only. The manufacturer reserves the right to modify these without warning and without obligation to modify equipment already sold.

CLIMATIC 50

The new generation of microprocessor based control, CLIMATIC™ 50 is fitted to the FLEXY Rooftop range.

It inherits 15 years of technology and field operating experience from its predecessors the CLIMATIC™1 and CLIMATIC™ 2. LENNOX has found the latest hardware technology available on the market place and developed a software specifically designed for Rooftop applications, maximising the LENNOX Rooftop efficiency and performance.

COMMUNICATION LINKS

Master / Slave

Rooftop can now be connected together (up to 12) via a double shielded pair of wire (0.75mm2 not supplied by Lennox) and use different running modes, as explained bellow, with no cost increase.

Fig. 81

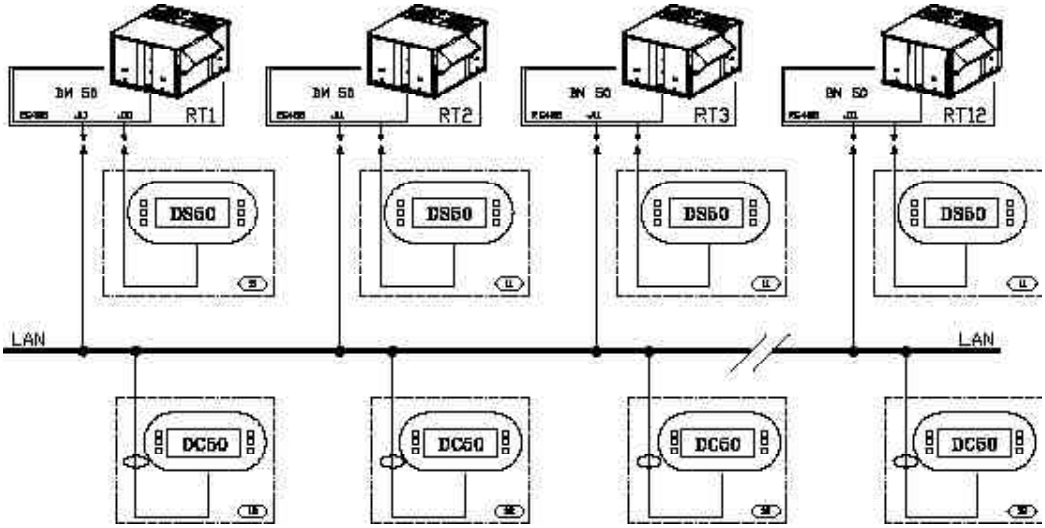


Table 7

	FAN	SET POINT	ROOM TEMP	COOLING HEAT MODE
1.Total master / slave	MASTER	MASTER	MASTER	N/A
2. Master / slave temperature	MASTER	STAND ALONE	MASTER	N/A
3 Master / slave average	MASTER	STAND ALONE	AVERAGE	N/A
4 Master / slave heating / cooling	STAND ALONE	STAND ALONE	STAND ALONE	MASTER
5 Back-up	All units are stand alone one unit is waiting for a failure to start			
6 Rolling Back-up	All units are stand alone, one unit is waiting for a failure to start. This back-up unit changes every Tuesday			

_ 1 : Master slave mode "total"

The master gives the ventilation order, its set point and its room temperature/humidity to all other rooftops.

_ 2 : Master slave mode "temperature"

The master gives the ventilation order and its room temperature/humidity to all other rooftops, but they have their own set point.

_ 3 : Master slave mode "average"

The master gives the ventilation order and the room temperature/humidity used by all rooftop is the average of all rooftop. Each rooftop has its own set point.

_ 4 : Master slave mode "cooling/heating"

All rooftop are stand-alone but the slaves have to have the same running mode as the master (Cooling or heating).

_ 5 : Back-up mode

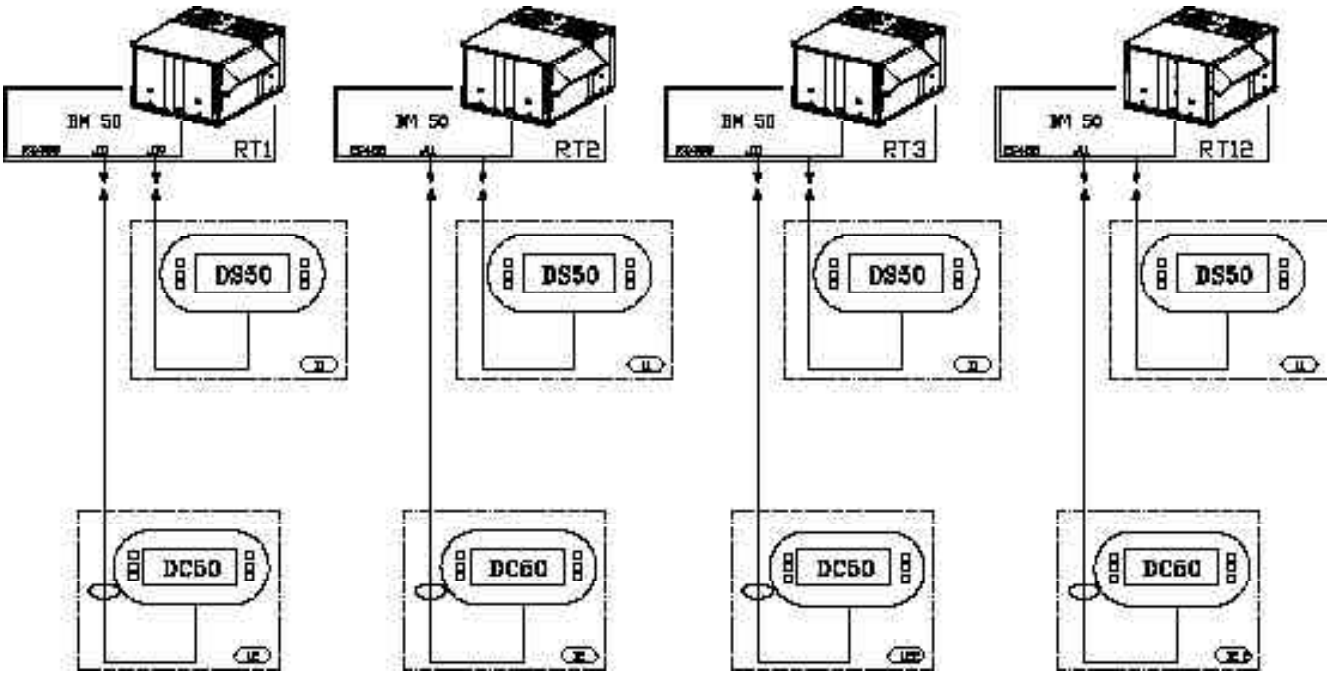
One rooftop is the back-up unit and will operate if any of the other rooftop has a failure.

_ 6 : Rolling Back-up mode

Same as above, except the "back-up" unit will be different each Tuesday. On top of that, the outside temperature/ humidity given to all rooftop can either be the average of rooftop or be the external humidity/temperature of the master, making possible the use of a single "weather station" for the whole site.DS50 Comfort Display / DC50 Service Display.

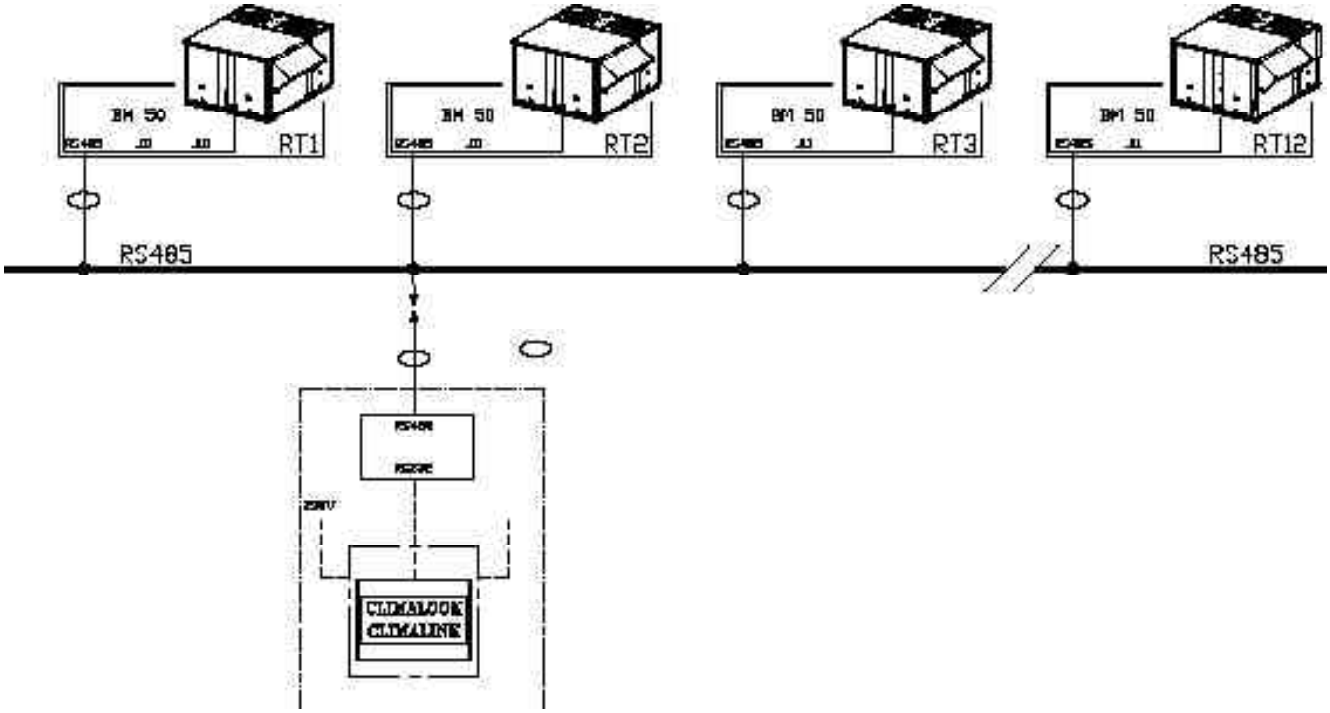
DS 50 : SERVICE DISPLAY / DC 50 : COMFORT DISPLAY

Fig. 82



CLIMALINK / CLIMALOOK

Fig. 83



CLIMATIC 50 SOFTWARE FEATURES AND LOGIC

CLIMATIC™ 50 provides flexibility and the ability to control multiple Rooftops on a single site.
Enhanced with a 16 bit processor at 14Mhz and a 2 Megabytes flash memory, CLIMATIC™ 50 has been designed to save energy and to extend the operational life of the FLEXY product range. It is able to control 50 fault signals and manage security algorithms generating various fault signals. In terms of comfort, CLIMATIC™ 50 provides an innovative PI control.
CLIMATIC™ 50 offers incredible flexibility. For example, advanced users can go in the heart of the regulation and adjust the reactivity of the PI algorithm or set the supply temperature limits .

As a standard feature, CLIMATIC™50 provides 4 scheduling time zones per day on 7 days. On each of the 4 time zones, heating set point, cooling set point, minimum fresh air, humidity set point high and up, and even the different authorisations for cooling and heating can be adjusted.
CLIMATIC™ 50 provides a choice of different remote displays depending on customer requirement and application of the system. As a standard feature, it is possible to set alarms (adjustable value low and high) on room temperature and humidity.

CONTROL SOFTWARE LOGIC

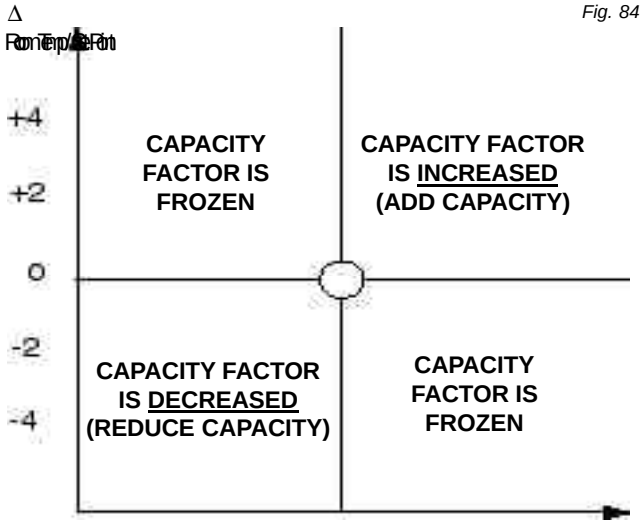
With the CLIMATIC™ 50 Lennox is going away from the traditional step control

Capacity factor
It is used to determine the exact capacity required at any time in order to react quicker and more accurately to any change in demand.
The capacity factor is a percentage of the total cooling or heating capacity.

Example:
On a three circuit rooftop unit with two compressors running out of three has a capacity factor of 66%
In the same way, a three circuit rooftop with a modulating electric heater running at 20% of its full capacity has a CF:
CF = 25%+25%+25%+5% = 80%

The Capacity factor will increase, decrease, or freeze depending on the temperature difference between the set point and the room temperature but also on the way this room temperature is changing:

Fig. 84



Example:
The room set point is 25°C with a 3 compressor unit.

Table 8

Delta vs room set point	Room Temp.	Cap. factor	COMP 1	COMP 2	COMP 3
+0	Increasing	0%	OFF	OFF	OFF
+1	Increasing	35%	ON	OFF	OFF
+2	Increasing	70%	ON	ON	OFF
+3	Increasing	100%	ON	ON	ON
+2	Decreasing	100%	ON	ON	ON
+1	Decreasing	100%	ON	ON	ON
0	Decreasing	100%	ON	ON	ON
-1	Decreasing	60%	ON	ON	OFF
0	Increasing	60%	ON	ON	OFF

Reactivity.
The reactivity determines how fast the capacity factor should vary.
It is given in: Percentage of capacity / >Degree °C (Room Temp. VS Set Point) / minute

Example :
If the reactivity is set to 3 % / °C / min
Then:
Capacity factor can go from 0 to 30% in 10 minutes if Room Temp. VS Set Point is 1°C
Or capacity factor will go from 0 to 60 % in 4 minutes if Room Temp. VS Set Point is 5°C

The reactivity can be adjusted with the CLIMATIC™ 50 The larger the reactivity the faster the rooftop will react to a change.

The next table shows the effect of a change of the reactivity on the capacity factor: This shows that by increasing the reactivity, the unit reaches the set point quicker but the energy consumption (capacity factor) is larger.

REACTIVITY : 3

Table 9

DELTA +5	*15%*	75%	100%
DELTA +3	*9%*	45%	90%
DELTA +1	*1%*	*15%*	*30%*
	1MIN	5MIN	10MIN

REACTIVITY : 6

Table 10

DELTA +5	*30%*	100%	100%
DELTA +3	*18%*	90%	100%
DELTA +1	*2%*	*30%*	60%
	1MIN	5MIN	10MIN

OTHER FEATURES

Dynamic Set Point

This feature allows the set point to change according to the outside temperature.

Example:
If the set point is 25°C
And the dynamic set point is set to 6°C

Then, when the outdoor temperature reaches: 31°C (25°C + 6°C) the set point will follow the outdoor temperature with a 6°C temperature difference.

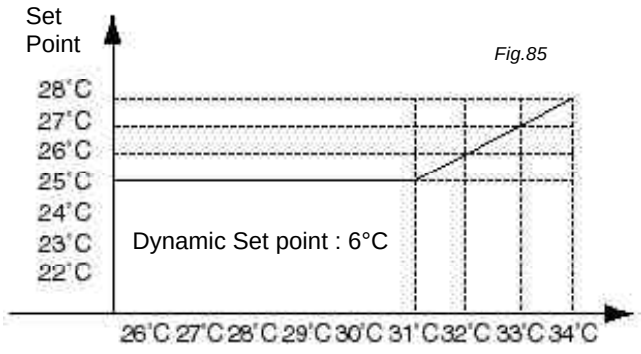


Fig.85

If you do not want to use this feature, set the dynamic set point to 99

Time Zones and scheduling

With the Climatic50 the scheduling has been completely reviewed:
The first day of the week is Monday.
Automatic switch from winter time to summer time.
Unoccupied mode from one to seven days
Three occupied and one unoccupied zone per day

For each zone a series of set points and feature can be adjusted or selected, depending on the type of display which is being used.

Table 11

LIST OF SET POINTS PER ZONE	CONFORT DISPLAY	SERVICE DISPLAY
AMBIANT TEMPERATURE Average set point	Yes	Yes
Dynamic Set Point	Yes	Yes
Cooling Set Point	0	Yes
Heating Set point	0	Yes
Heating Priority	0	Yes
FRESH AIR REHEAT activated	0	Yes
Heating priority	0	Yes
HUMIDITY		
Dehumidification	0	Yes
Humidification	0	Yes
AUTHORIZATION		
Free Cooling	0	Yes
Fresh Air by CO2	0	Yes
Mechanical cooling	0	Yes
Mechanical heating	0	Yes
Auxiliary heating	0	Yes
OTHER		
Fan Mode :On / Off / Auto	0	Yes
Minimum fresh air (%)	Yes	Yes
SCHEDULING		
Beginning of the zone for each day	Yes	Yes

Table 12

	8h00	12h00	14h00	20h00	
Monday	**Unoc.**	ZA	ZB	ZC	**Unoc.**
Tuesday					
Wed.					
Thursday					
Friday					
Saturday					
Sunday					

Each zone is determined by its starting time.

Forced modes

3 hours Override
A three hours override period can be forced on the CLIMATIC™50:
With this feature, a new room temperature set point and fresh air requirement can be imposed for a three hour period; It will then revert to the original setting at the end of the override period or earlier by switching off the override on the controller display.

Forced unoccupied zone.
The unoccupied zone settings can be forced for a period of up to seven days. It will then revert to the original settings at the end of the defined period or earlier by switching off the forced unoccupied mode on the controller display.

Heating priorities
It is possible to set heating priorities depending on the outdoor temperature.

Example:
It could be decided based on energy costs, that on a dual fuel unit, it should run in heat pump mode when the temperature is above 0°C and switch to gas burner below that point.

Staggered start

After a power cut, the units can be made to restart one after the other to prevent any current surge.
There is no need for a link between the units, they just have to be given an address during commissioning and they will restart 10 seconds x their "address number" after the power is switched back on.

Example:
If a unit is given the address N°3 it will be switched-on 30 seconds (3 x 10sec) after the power is switched back on.

Fresh air adjustment and calibration on Economiser

The actual fresh air volume brought into the system is not always proportional to the percentage of opening of the fresh air damper. That is particularly true when the return air duct system has been sized to produce excessive pressure drop.
This often results in bringing into the system an excessive amount of fresh air, hence increasing the running cost of the system.

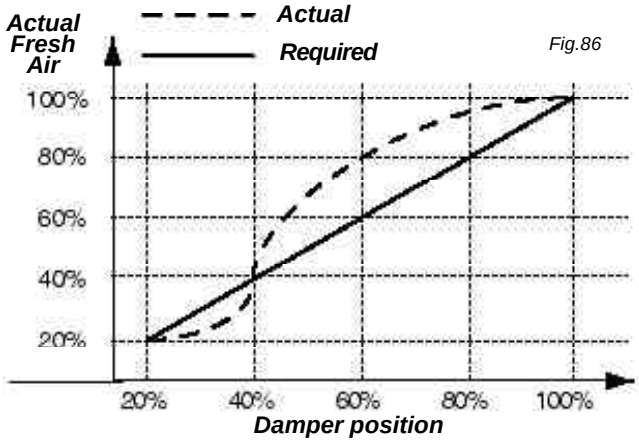


Fig.86

The control of fresh air is now achieved through the use of three temperature sensors: One in the supply air flow, one in the return air and one for the outdoor temperature.
Using these three sensors, the Climatic50 will calculate and memorise the exact percentage of fresh air for each position of the damper.

$$T_{supply\ air} = T_{return\ air} \times \%_{Return\ air} + T_{fresh\ air} \times \%_{fresh\ air}$$

The calibration sequence will take place periodically when all cooling or heating inputs are off.

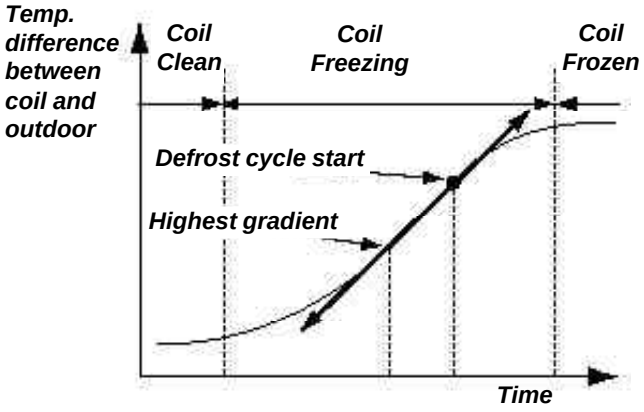
Dynamic Defrost

This new feature patented under INPI 91.033.063 allows the unit to start the defrost cycle only when required.
This is achieved through the measurement of the temperature difference between the coil and the outdoor.

The defrost will be initiated shortly after the Climatic50 has located the largest gradient in the curve.

The defrost cycle ends when one of these two condition is completed whichever comes first:
+ Three defrost cycles max.
+ 4 minutes.

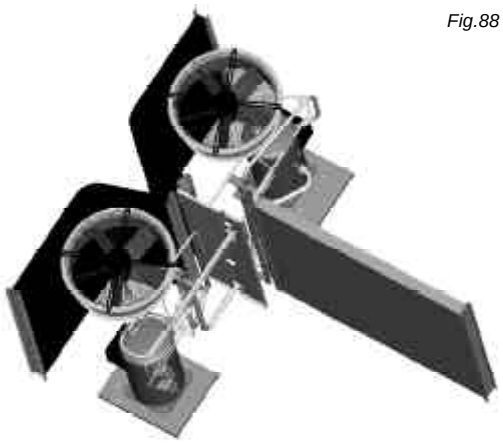
Fig.87



Alternate defrost (Optional size on 85-100)

All dual circuits Flexy units have "Alternate Defrost" as a standard feature.
When one circuit is going through a defrost cycle the second circuit is running in heat pump mode. This reduces the need for costly electric heater to maintain the supply air temperature to an acceptable level of comfort during the defrost cycles.

Fig.88

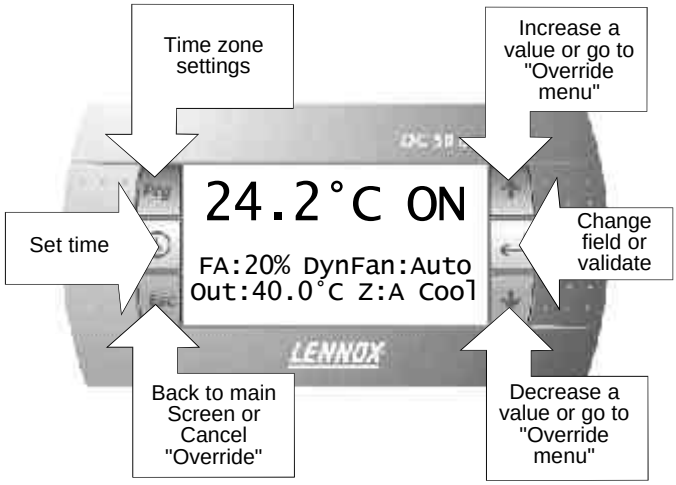


CONTROL INTERFACES AND DISPLAYS

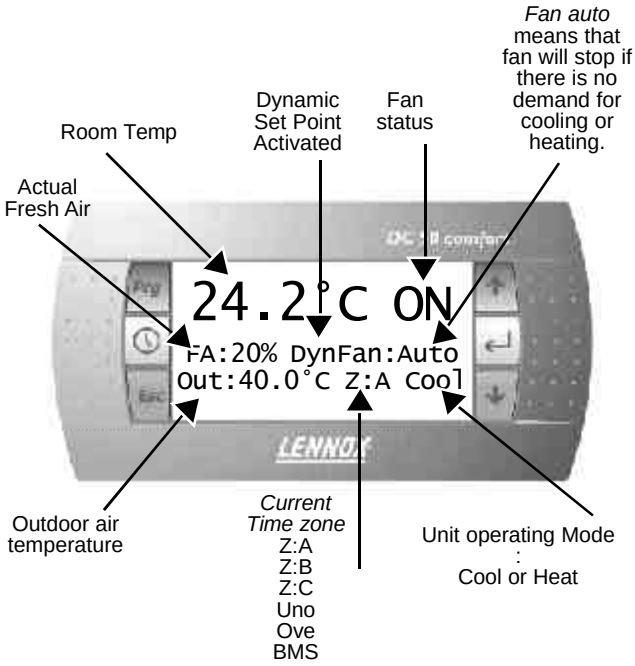
DC50 COMFORT DISPLAY

This is a remote controller for non-technical customer. This display give information such as running mode status of the fan, set point, % of fresh air and outside air temperature.
It can be used to set or change the scheduling of the different time zones, the temperature set point, and the % of fresh air for each zone. It also has the capacity to set a 3 hours override and to force the unoccupied mode for up to 7 days. It displays the real time clock and different faults signals.

Keys



Main Screen

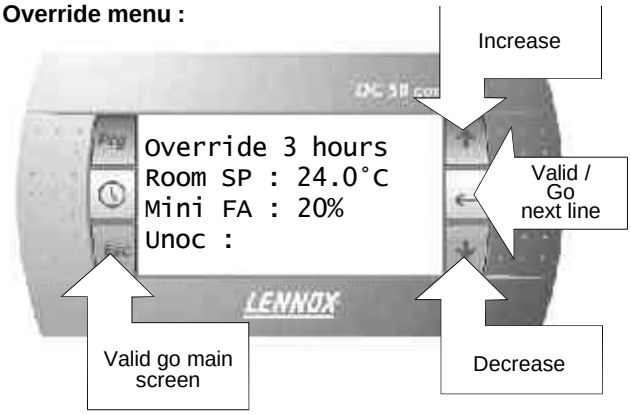


Override 3 hours :

From main screen press any of the two arrow keys as shown bellow:

Main screen :

Override menu :



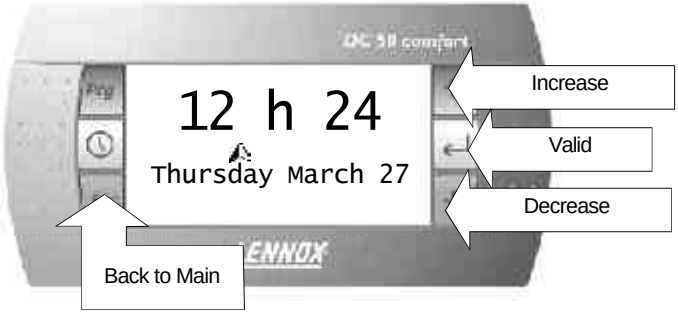
It will revert back to main screen after 15 seconds, if no activity

Forced Unoccupied zone :

Select "unoc" in the override menu and validate
UP to 7 days unoccupied period (starting from current day).

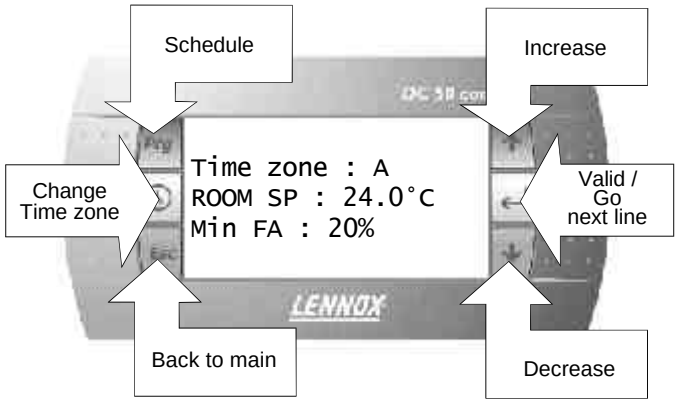
Clock Menu :

From main screen press the clock key, the following menu appears:



"Time Zone" Menu

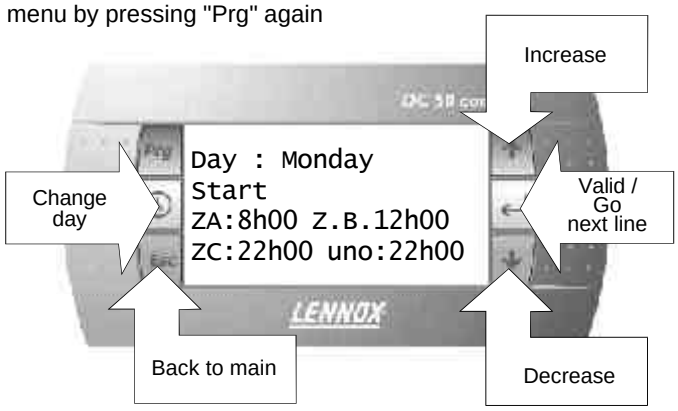
From main screen press the "Prg" key, the following menu appears:



It will reverts back to main screen after 15 seconds if no activity.

"Scheduling" Menu

The scheduling menu can be accessed from the "time zone" menu by pressing "Prg" again

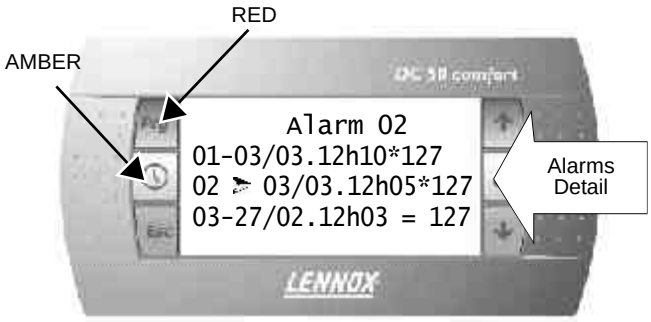


Alarm screen

Filter Alarm: All keys are locked, the only way to escape this screen is to clean the filter

Major Alarm

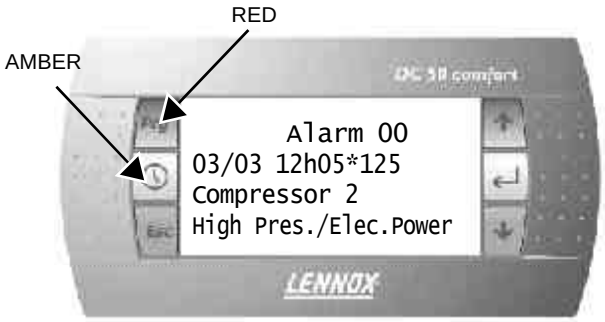
Alarm History Menu



You can scroll down this menu using the arrow keys and select one of the alarm message by pressing the return key.

Alarm details

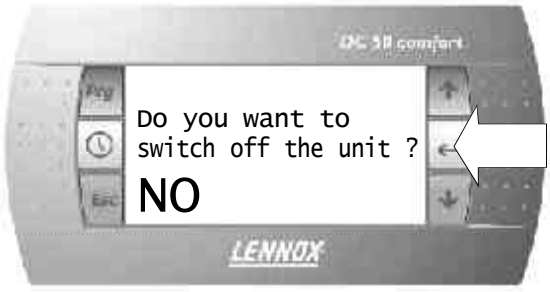
This menu allows you to view details on the selected fault as shown below:



Switching ON and OFF the unit

Pressing the return key on the main screen will display the following message:

WARNING : Switching Off the unit disable all safety Protections



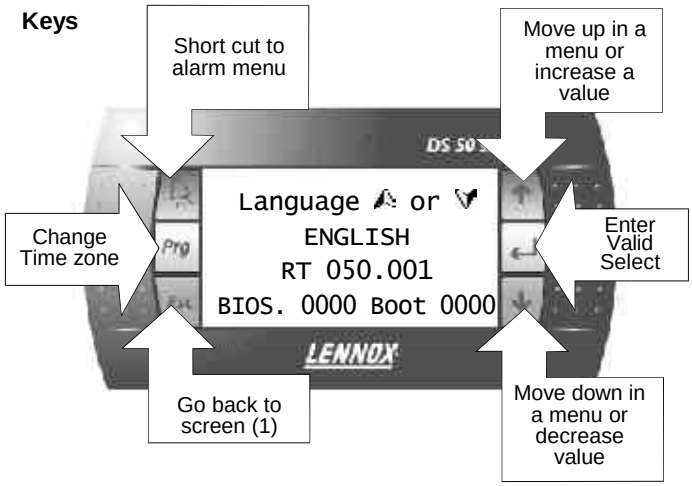
Move up and down to display "YES" then pressing the return key again will switch off the unit.

It can then be switched back ON by pressing the return key once more.

DS50 SERVICE DISPLAY

This new service display controller is a plug and play feature but it can also be remotely installed.
Plugging the DS50 will freeze a DC50

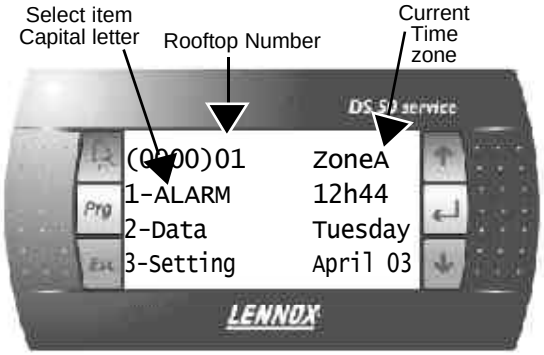
Keys



Start up screen or Screen(1)

Screen (2) language selection

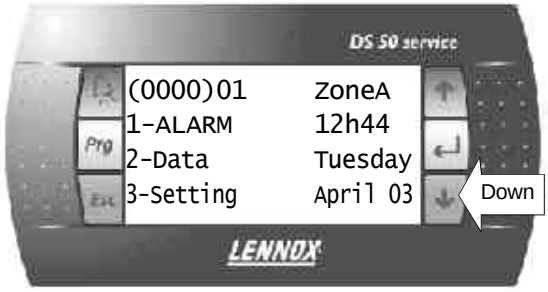
Five languages are available in addition to English. The required language must be specified at the time of order. In this menu the specified language can be selected using the up and down keys. The "prg" key validates the choice and start the controller.

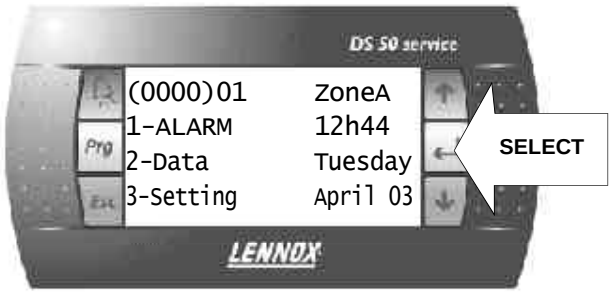


Main menu (0000)

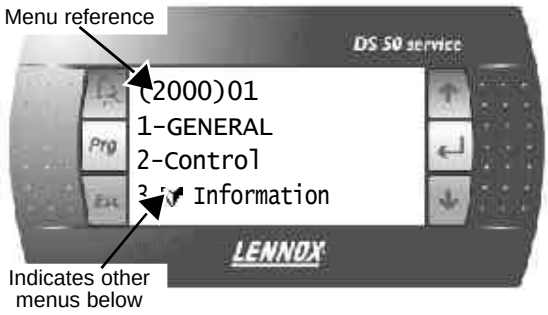
Moving down the menus

Pressing the arrow keys allows you to move up and down the menu tree. The selected item changes to CAPITAL letter. It can then be selected by pressing the "return" or "select" key.



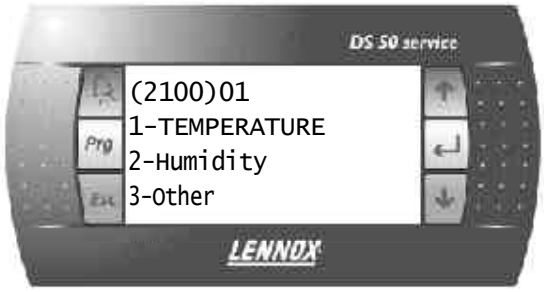


Sub-menu Data (2000)

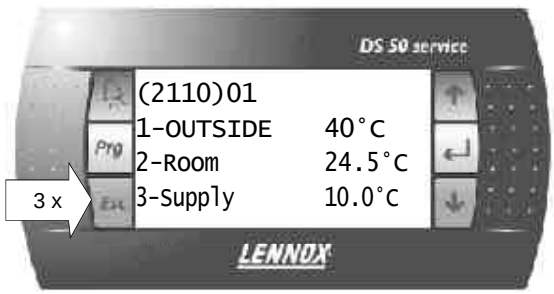


If the menu GENERAL is selected, the controller then displays a second level sub-menu.

By selecting the item TEMPERATURE and pressing return, a third

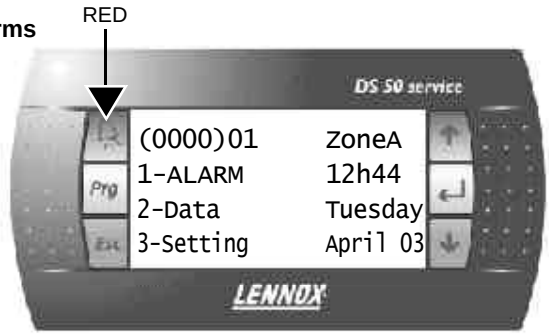


level page is displayed as shown bellow:

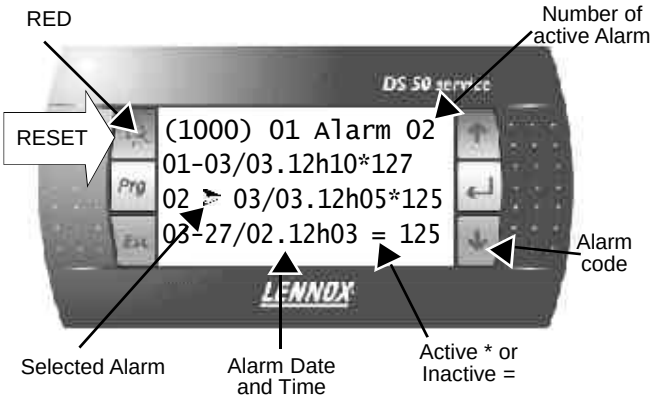


Pressing "ESC" at any time sends you back one level up the menu tree. In the example shown above "ESC" must be pressed 3 times to go back to the main menu (0000) Pressing "ESC" will invalidate any changes made to a value in a setting page.

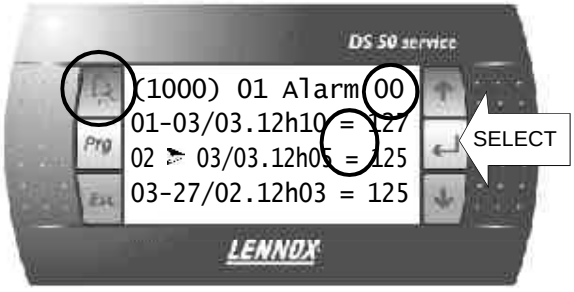
Alarms



Select the alarm menu using the arrow keys and press return.
The faults history is then displayed in the page (1000):

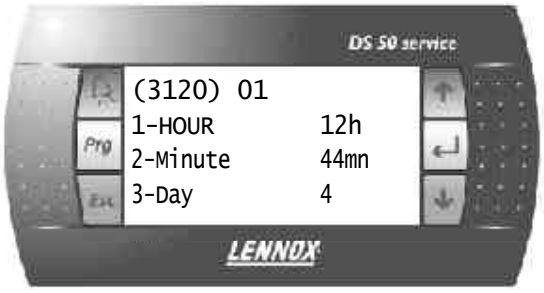


Pressing the "ALARM" key resets all the alarms
The number of active alarms goes to 0, no active alarm shown in the menu, the "bell" key is switched off.

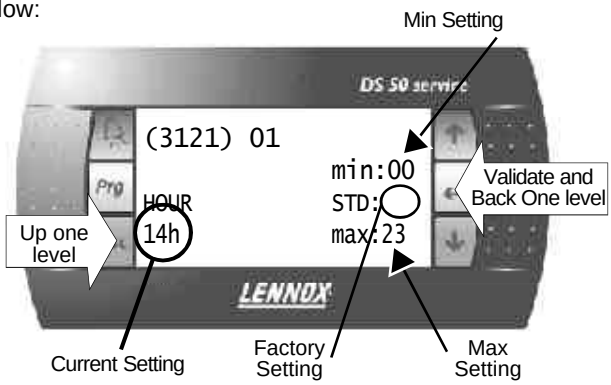


Pressing the "return" key will display details of the selected alarm

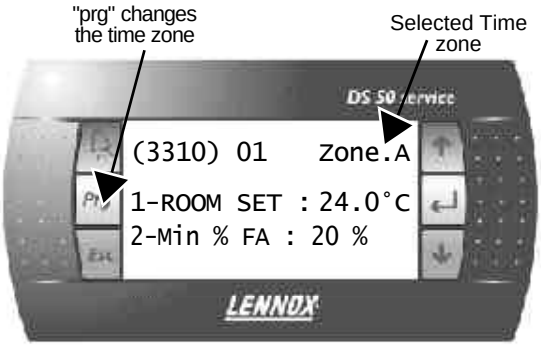
Clock settings
The clock setting menu can be accessed from the main menu by selecting the menu "SETTING" and then navigating down through the sub-menus until page (3120).



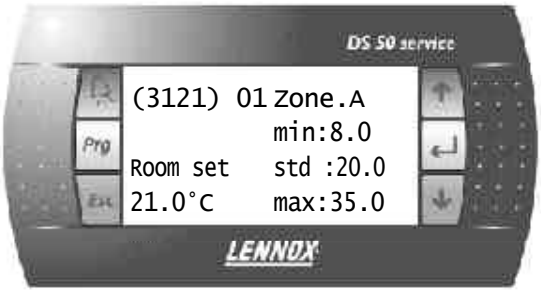
Selecting the HOUR for displays the page 3121 shown bellow:



Zone Settings
From Main menu (0000) navigate down to sub-menu "SETTINGS", zone settings (3310).



In this particular page, pressing the "prg" key, changes the time zone. If "ROOM SET" is selected, this displays the room set point for the specific time zone shown in the top corner.



Pressing the "prg" validates any changes made, and move to the next time zone. "ESC" does not validate the changes and move back one step in the menu tree.

Table 13

Main Screen	Code	Description	Code	Description	Code	Description	Code	UNIT	Min	Factory	Max
1-Alarm	1000	1-(date).(time)	**1100**								
	2-(date).(time)		**1200**								
	3-(date).(time)		**1300**								
2-Data	2000	1-General	**2100**	1-Temperature	**2110**	Outside		°C			
						Room		°C			
						Supply		°C			
						Return		°C			
				2-Humidity	**2120**	Outside		%.			
						Room		%.			
						Outside		g/kg			
						Room		g/kg			
				3-Other	**2130**	Air Pres.		Pa			
						CO2		ppm			
						Sw On/Off		On/Off			
						Sw Reset		On/Off			
						Sw Unoc.		On/Off			
				4-Customized	**2140**	Temp. 1		°C			
						Temp. 2		°C			
						Temp. 3		°C			
						Temp. 4		°C			
						Humi. 1		%.			
						Humi. 2		%.			
						Humi. 3		%.			
						Humi. 4		%.			
				5-Customized	**2150**	Switch 1		On/Off			
						Switch 2		On/Off			
						Switch 3		On/Off			
						Switch 4		On/Off			
						Switch 5		On/Off			
						Switch 6		On/Off			
				6-Customized	**2160**	Relay 1		On/Off			
						Relay 2		On/Off			
						Relay 3		On/Off			
						Relay 4		On/Off			
						Relay 5		On/Off			
	2-Control		2200	1-Room	**2210**	Sp Cool		°C			
						Sp Heat		°C			
						Capa Cool		%			
						Capa Heat		%			
						Sw Dis.Cool		On/Off			
						Sw Dis.Heat		On/Off			
				2-Reheat	**2220**	Set Point		°C			
						Capacity		%			
				3-Humidity	**2230**	Sp Dehu		%			
						Sp Humi		%			
						Capa Dehu		%			
						Capa Humi		%			
				4-TCB	**2240**	Sw G		On/Off			
						Sw Y1		On/Off			
						Sw Y2		On/Off			
						Sw W1		On/Off			
						Sw W2		On/Off			
						Sw B		On/Off			

Main Screen Code	Description	Code	Description	Code	Description	Code	UNIT	Min	Factory	Max
	3-Fan	**2300**	1-Ventilation	**2310**	Config.		List			
					State		List			
					Sw State		On/Off			
					Fire/Smoke		On/Off			
					Relay		On/Off			
					Low Speed		On/Off			
					Sw Speed		On/Off			
			2-Extraction	**2320**	State		List			
					Relay		On/Off			
			3-Condenser 1	**2330**	Config.		List			
					State		List			
					Sw State		On/Off			
					Relay		On/Off			
			4-Condenser 2	**2340**	Config.		List			
					State		List			
					Sw State		On/Off			
					Relay		On/Off			
			5-Condenser 3	**2350**	Config.		List			
					State		List			
					Sw State		On/Off			
					Relay		On/Off			
			6-Condenser 4	**2360**	Config.		List			
					State		List			
					Sw State		On/Off			
					Relay		On/Off			
	4-Fresh Air			**2410**	Config.		List			
					State		List			
					Opening		%			
	5-Compressor	**2500**	1-Compressor 1	**2510**	Config.		List			
					State		List			
					Defrost T		°C			
					Sw State		On/Off			
					Sw Low P.		On/Off			
					Relay		On/Off			
					H.Pump		On/Off			
					Sw Disable		On/Off			
			2-Compressor 2	**2520**	Config.		List			
					State		List			
					Defrost T.		°C			
					Sw State		On/Off			
					Sw Low P.		On/Off			
					Relay		On/Off			
					H.Pump		On/Off			
					Sw Disable		On/Off			
			3-Compressor 3	**2530**	Config.		List			
					State		List			
					Defrost T.		°C			
					Sw State		On/Off			
					Sw Low P.		On/Off			
					Relay		On/Off			
					H.Pump		On/Off			
					Sw Disable		On/Off			
			4-Compressor 4	**2540**	Config.		List			
					State		List			
					Defrost T.		°C			
					Sw State		On/Off			
					Sw Low P.		On/Off			
					Relay		On/Off			
					H.Pump		On/Off			
					Sw Disable		On/Off			

Main Screen Code	Description	Code	Description	Code	Description	Code	UNIT	Min	Factory Max
			5-Other	**2550**	Low Amb.		On/Off		
					W/Cond.1		°C		
					W/Cond.2		°C		
	6-Aux. Heater	**2600**	1-Gas	**2610**	Config.		List		
					State		List		
					Sw State 1		On/Off		
					Sw State 2		On/Off		
					Relay 1		On/Off		
					Relay 2		On/Off		
					High		On/Off		
					Modulat.		%		
					Sw Disable		On/Off		
			2-Elec. H.	**2620**	Config.		List		
					State		List		
					Sw State 1		On/Off		
					Sw State 2		On/Off		
					Relay 1		On/Off		
					Relay 2		On/Off		
					Modulat.		%		
					Sw Disable		On/Off		
			3-Hot W/Coil	**2630**	Config.		List		
					State		List		
					Opening		%		
					Sw Freeze		On/Off		
					Sw Disable		On/Off		
			4-Pump	**2640**	Config.		List		
					State		List		
					Sw State		On/Off		
					Relay		On/Off		
	7-Humidif.			**2710**	Config.		List		
					State		List		
					Sw State		On/Off		
					Modulat.		%		
	8-Com.	**2800**	1-Outside	**2810**	Value		°C		
					Sensor		°C		
					Link		°C		
					BMS		°C		
					Value		%.		
					Sensor		%.		
					Link		%.		
					BMS		%.		
			2-Room	**2820**	Value		°C		
					Sensor		°C		
					Link		°C		
					BMS		°C		
					Value		%.		
					Sensor		%.		
					Link		%.		
					BMS		%.		

ALL CODES SHOWING (1) CAN BE ADJUSTED FOR EACH TIME ZONE

Main Screen	Code	Description	Code	Description	Code	Description	Code	UNIT	Min	Factory	Max	description
3-Setting	**3000**	1-General	**3100**	1-Order	**3110**	1-On/Off	3111	On/Off	~	Off	~	*[On / Off] Unit
						2-Reset Al.	3112	On/Off	~	Off	~	*[Reset] Discharges the safety measures of the unit
						3-Resume	3113	On/Off	~	Off	~	*[Override] Cancel any override action set with the DC50
						4-Test	3114	List	0	0	2	*[TEST] Test set point "LENNOX"
			2-Clock		**3120**	1-Hour	3121	h	0	~	23	*[Clock] Clock setting "Hour"
						2-Minute	3122	m	0	~	59	*[Clock] Clock setting "Minute"
						3-Day	3123	~	1	~	31	*[Clock] Clock setting "Day"
						4-Month	3124	~	1	~	12	*[Clock] Clock setting "Month"
						5-Year	3125	~	2	~	99	*[Clock] Clock setting "Year"
		2-Schedule	**3200**	1-Time	**3210**	1-Start Uno	3211	h	0	22	23	*[Zone Setting] Starting time "Hour" for "Unocupied" zone
						2-Start Uno	3212	m	0	0	59	*[Zone Setting] Starting time "Minutes" for "Unocupied" zone
						3-Start z.A	3213	h	0	6	23	*[Zone Setting] Starting time "Hour" for "Zone A"
						4-Start z.A	3214	m	0	0	59	*[Zone Setting] Starting time "Minutes" for "Zone A"
						5-Start z.B	3215	h	0	22	23	*[Zone Setting] Starting time "Hour" for "Zone B"
						6-Start z.B	3216	m	0	0	59	*[Zone Setting] Starting time "Minutes" for "Zone B"
						7-Start z.C	3217	h	0	22	23	*[Zone Setting] Starting time "Hour" for "Zone C"
						8-Start z.C	3218	m	0	0	59	*[Zone Setting] Starting time "Minutes" for "Zone C"
			2-Anticipation		**3220**	1-Foot	**3221**	°C	-10	10	20	*[Anticipation Function] bottom of the slope in °C. Limit of activation of the function. This allows an anticipated startup in the morning depending on the outdoor temperature. Only for the "Zone-A"
						2-Gradient	**3222**	~	0	0	100	*[Anticipation Function] Slope in "Minutes of anticipation per degrees".This allows an anticipated startup in the morning depending on the outdoor temperature.Only for the "Zone-A"
		3-Control	**3300**	1-Customer	**3310**	1-Sp Room	**3311**(1)	°C	8	20	35	*[Room SP] Required room temperature set point in °C. Middle of the dead zone.
						2-Mini.Air	**3312**(1)	%	0	20	100	[Room SP] Required room minimum fresh air rate in % Middle of the dead zone.
		2-Room			**3320**	1-Sp Dyna	**3321**(1)	°C	0	99,9	99,9	*[Room SP] Required value for the Dynamic Set Point. Allows the room set point to change according to outdoor temperature
						2-Sp Cool	**3322**(1)	°C	8	21	35	*[Room SP] Required maximum room temperature in °C. Cooling set point
						3-Sp Heat	**3323**(1)	°C	8	19	35	*[Room SP] Required minimum room temperature in °C. Heating set point
						4-Swap Heater	**3324**(1)	On/Off	~	Off	~	*[OFF] Heat Pump and then Heater [ON] Heater and then Heat Pump
		3-Reheat			**3330**	1-Activation	**3331**(1)	On/Off	~	Off	~	*[F-Air Reheat] Activate reheating of the fresh air in the dead zone to maintain supply temperature.
						2-Swap Heater	**3332**(1)	On/Off	~	Off	~	*[F-Air Reheat] Prioritise the heating mode for fresh air reheat. [OFF] Heat Pump and then Heater [ON] Heater and then Heat Pump
					3340	1-Sp Dehu	**3341**(1)	%	0	100	100	*[Humidity] Desired Maximum relative humidity in Room (in %). – Dehumidification set point.
						2-Sp Humi	**3342**(1)	%	0	0	100	*[Humidity] Desired Minimum relative humidity in Room (in %). – Humidification set point.

ALL CODES SHOWING (1) CAN BE ADJUSTED FOR EACH TIME ZONE

Main Screen Code	Description	Code	Description	Code	Description	Code	UNIT		Min	Factory	Max	description
			5-Enable	**3350**	1-Fan On/Off	3351[(1)]	On/Off		~	On	~	*[Enable] Stopping and running of the Fan Blower.[OFF] the blower is stopped, [ON] the blower is running.
					2-Fan Dead	3352[(1)]	On/Off		~	On	~	*[Enable] Stopping and running of the fan in the "Control Dead Zone". [OFF] the blower is stopped, [ON] the blower is running.
					3-F.Air	3353[(1)]	On/Off		~	On	~	*[Enable] Run eco: [ON] the Economiser is running, [OFF] the Economiser if stopped.
					4-CO2	3354[(1)]	On/Off		~	On	~	*[Enable] Run CO2 Sensor: [ON] Switch-on the CO2 on a Zone, [OFF]Stop the CO2 sensor on a zone.
					5-Comp.Cool.	3355[(1)]	On/Off		~	On	~	*[Enable] [OFF] Force the unloading of compressors in cooling mode.
					6-Comp.Heat.	3356[(1)]	On/Off		~	On	~	*[Enable] [OFF] Force the unloading of compressors in heating mode.
					7-AuxHeat	3357[(1)]	On/Off		~	On	~	*[Enable] [OFF] Force the unloading of heating module (electric, gas or heat water coil)
					8-Humidif.	3358[(1)]	On/Off		~	On	~	*[Enable] [OFF] Force the unloading of humidity control.
					9-Low Noise	3359[(1)]	On/Off		~	Off	~	*[Enable] Force the noise reduction mode. [ON] 50% of the compressors are unloaded in "Unocupied" zone
			6-Capacity	**3360**	1-Room	3361	~	1	4	100		*[Capacity Factor] Reactivity : Refer to "Climatic features" in *IOM for details
					2-Reheat	3362	~	1	4	100		*[Capacity Factor] Reactivity: Refer to "Climatic features" in *IOM for details
			7-Safety	**3370**	1-Room Low	3371	°C	5	5	20		*[Safety Limit] Room temperature "Low Limit" in °C Threshold of activation of an alarm
					2-Room High	3372	°C	20	40	40		*[Safety Limit] Room temperature "High Limit" in °C Threshold of activation of an alarm
					3-Sup.Lo.1	3373	°C	9 or 5		10 or 8	19	*[Safety Limit] Supply temperature low Limit (in °c) - Threshold of activation of the 1° level of security: Reduce the "Capacity Factor" by one stage of compressor and switch to minimum Fresh Air,
					4-Sup.Lo.2	3374	°C	7 or 3		8 or 6	17	*[Safety Limit] Supply temperature low Limit (in °c) - Threshold of activation of the 2° level of security: Reduce the "Capacity Factor" to zero and switch to 0% Fresh Air,open the HWC valve.
					5-Sup.Lo.3	3375	°C	5 or 1		6 or 2	15	*[Safety Limit] Supply temperature low Limit (in °c) - Threshold of activation of the 3° level of security. - Alarm threshold, the unit is switched off.
					6-Sup.Hi.1	3376	°C	20	40	70		*[Safety Limit] Supply temperature high Limit (in °c) - Threshold of activation of the 1° level of security: reduce the capacity factor by one stage of compressor. Close the HWC valve.
					7-Sup.Hi.2	3377	°C	20	60	70		*[Safety Limit] Supply temperature high Limit (in °c) - Threshold of activation of the 2° level of security: Alarm threshold: Reduce the capacity factor to 0
					8-Room Low	3378	%	0	0	100		*[Safety Limit] Room relative humidity low Limit (in %) - Threshold of activation of the alarm
					9-Room High	3379	%	0	100	100		*[Safety Limit] Room humidity high Limit (in %) - Threshold of activation of the alarm
	4-Ventilation			**3410**	1-Air Flow	3411	Pa	0	25	1000		*[Safety Limit] Airflow Detection Threshold of pressure difference in Pa indicating Low Airflow Rate. If the pressure difference across the filter is lower than this threshold the safety is activated.

Main Screen	Code	Description	Code	Description	Code	Description	Code	UNIT	Min	Factory	Max	description
	4-Ventilation				**3410**	1-Air Flow	**3411**	Pa	0	25	1000	*[Safety Limit] Airflow Detection Threshold of pressure difference in Pa indicating Low Airflow Rate. If the pressure difference across the filter is lower than this threshold the safety is activated.
						2-No Filter	**3412**	Pa	0	50	1000	*[Safety Limit] Missing Filters. Threshold of pressure difference in Pa indicating absence of filters. If the pressure difference across the filter is lower than this threshold the safety is activated.
						3-Dirty Fil	**3413**	Pa	0	250	1000	*[Safety Limit] Dirty Filters. Threshold of pressure difference in Pa indicating Filters are Dirty. If the pressure difference across the filter is Higher than this threshold the safety is activated.
	5-Fresh Air				**3510**	1-Out.Limit	**3511**	°C	-20	0	40	*[Fresh air Damper] mimimum outdoor temperature limit in °C. If the outdoor temperature is lower than this limit the control in free cooling is not allowed. The fresh air damper is then set to the minimum setting.
						2-Maximum	**3512**	%	0	100	100	*[fresh air Damper] Maximum allowable opening of the fresh air damper in %
						3-Start Ext	**3513**	%	0	30	100	*[Extraction] Threshold of activation of the power exhaust fan according to the position of the economiser damper in %.
						4-Mini.Co2	**3514**	ppm	0	1000	2000	*[CO2] Fresh air damper minimum opening threshold in ppm
						5-Maxi.Co2	**3515**	ppm	0	1500	2000	*[CO2] Fresh air damper maximum opening limit in ppm
	6-Compressor		**3600**	1-Out.Limit	**3610**	1-Cool. 50	**3611**	°C	-10 or 10	20	40	*[Limit of Regulation] * 1° If Option Regulation all seasons - Reduction speed of the fans condenser - Threshold of outside temperature (in °c). - If the outside temperature is lower than this threshold the fans condenser function in low speed * 2° If not - Unloading 50% of the Compressors in Cooling - Threshold of outside temperature (in °c). - If the outside temperature is lower than this threshold 50% of the compressors are used by the Regulation
						2-Cool.100	**3612**	°C	-10 or 10	12	40	*[Limit of Regulation] * 1° If Option Regulation all seasons - Stopping of the fans condenser - Threshold of outside temperature (in °c). - If the outside temperature is lower than this threshold the fans condenser are stopped * 2° If not - Unloading 100% of the Compressors in Cold - Threshold of outside temperature (in °c). - If the outside temperature is lower than this threshold the compressors are not used by the Regulation
						3-Heat.100	**3613**	°C	-50	-20	40	*[Limit of Regulation] Unloading 100% of the Compressors in Heating - Threshold of outside temperature (in °c). - If the outside temperature is lower than this threshold the compressors are not used by the Regulation
				2-Defrost	**3620**	1-Type	**3621**	List	0	0	1	*[Function Defrost] Choice of defrost: 1 = "cycling" or 0 = "dynamic"
						2-Outside	**3622**	°C	8	10	20	*[Function Defrost] Authorization of defrost - Threshold of outside temperature (in °c)
						3-Coil	**3623**	°C	-10	-2	10	*[Function Defrost] Authorization of defrost - Threshold of coil temperature (in °c)
						4-Time Limit	**3624**	m	30	45	90	*[Function Defrost] Time limit for icing (in minute) -For the dynamic defrost the unit will run this minimum amount of time. If cycling defrost this is the time delay to start the defrost once the temperature conditions are met.
						5-Time Fc	**3625**	~	1	3	5	*[Function Defrost] Number of condenser fan start-ups to end defrost. If the number of start-ups can not be acheived within 4min the defrost will end.
				3-Safety	**3630**	1-W/Cd Mini	**3631**	°C	4	5	20	*[Safety limit] Low Temperature Limit for water heat exchanger output (in °c) - Threshold of activation of the safety limit.
						2-W/Cd Maxi	**3632**	°C	20	45	46	*[safety limit] High Temperature Limit for water heat exchanger output (in °c) - Threshold of activation of the safety limit.

Main Screen	Code	Description	Code	Description	Code	Description	Code	UNIT	Min	Factory	Max	description
	7-Aux. Heater				**3710**	1-Out.Limit	**3711**	°C	-20	10	40	*[Limit of Regulation] Unloading 100% of heaters - Threshold of outside temperature (in °c). If the outside temperature is higher than this threshold Heaters are switched off.
						2-Sp Mixing	**3712**	°C	0	5	10	*[Electrical heater] Regulation all seasons of FLEXY FX - Threshold of temperature of mixture (in °c) - If the temperature of mixture is lower than this threshold Electrical Heaters are activated
						3-Maximum	**3713**	%	0	100	100	*[Electrical heater] For Electric Heater with Triac: Maximum power of use of Electrical heater (in %)
	8-Config.		**3800**	1-Option	**3810**	1-Size	**3811**	~	List	0	?	*[Configuration] Type of unit
						2-LAK	**3812**	On/Off	~	~	~	*[Configuration] Low Ambient Kit "all season control"
						3-Defrost+	**3813**	On/Off	~	~	~	*[Configuration] Activation of the "Optimized Defrost" Option. Only for Flexy 85_100 with split airflow.
						4-Hu. Pack	**3814**	On/Off	~	~	~	*[Configuration] Activation of the Humidity Management Option
						5-P. Air	**3815**	List	0	0	2	*[Configuration] Configuration of the diffrencial pressure sensor: 0Pa; 500Pa; 1000Pa
						6-AuxHeat	**3816**	List	0	0	6	*[Configuration] Configuration of the Heating Input: HWC S/H; Electric Heater S/M/H or Gas S/H
						7-F.Air	**3817**	List	0	0	3	*[Configuration] Configuration of the Fresh Air / Economiser: NO, 100% fixed or 0-50% or 0-100% Modulating.
						8-TCB	**3818**	On/Off	~	~	~	*[Configuration] Configuration of the Thermostat Control Board.
				2-Out. Custom.	**3820**	1-BM50.1	**3821**	List	0	0	6	*[Configuration] Free output to be customised on the BM50
						2-BE50.1	**3822**	List	0	0	6	*[Configuration] Free output to be customised (first output of the extension board BE50)
						3-BE50.2	**3823**	List	0	0	6	*[Configuration] Free output to be customised (Second output of the extension board BE50)
						4-BE50.3	**3824**	List	0	0	6	*[Configuration] Free output to be customised (Third output of the extension board BE50)
						5-BE50.4	**3825**	List	0	0	6	[Configuration] Free output to be customised (Fourth output of the extension board BE50)
				3-In. Custom.	**3830**	1-BM50.1	**3831**	List	0	0	8	*[Configuration] Free input to be customised on the BM50
						2-BM50.2	**3832**	List	0	0	8	*[Configuration] Free input to be customised on the BM50
						3-BE50.1	**3833**	List	0	0	8	*[Configuration] Free input to be customised (intput on the extension board BE50)
						4-BE50.2	**3834**	List	0	0	8	*[Configuration] Free input to be customised (intput on the extension board BE50)
						5-BE50.3	**3835**	List	0	0	8	*[Configuration] Free input to be customised (intput on the extension board BE50)
						6-BE50.4	**3836**	List	0	0	8	*[Configuration] Free input to be customised (intput on the extension board BE50)
				4-In.% Custom.	**3840**	1-BE50.1	**3841**	List	0	0	4	*[Configuration] Free input to be customised on the BM50
						2-BE50.2	**3842**	List	0	0	4	*[Configuration] Free input to be customised on the BM50
						3-BE50.3	**3843**	List	0	0	4	*[Configuration] Free input to be customised (intput on the extension board BE50)
						4-BE50.4	**3844**	List	0	0	4	*[Configuration] Free input to be customised (intput on the extension board BE50)

Main Screen Code	Description	Code	Description	Code	Description	Code	UNIT	Min	Factory	Max	description
	9-Com.	**3900**	1-Display	**3910**	1-Sp Mini.	**3911**	°C	8	17	21	*[Mode] Minimum temperature for the required room temperature setpoint at the middle of the dead zone.
					2-Sp Maxi.	**3912**	°C	21	27	35	*[Mode] Maximum temperature for the required room temperature setpoint at the middle of the dead zone.
					3-Offset	**3913**	°C	-5	0	5	*Offset of the value measured by the ambient temperature sensor
					4-Standard Sp	**3914**	On/Off	~	Off	~	*Allows a reset of ALL set point to standard factory settings (when available).No possible for configurations. and clock as there is no factory settings for these.
			2-Link	**3920**	1-ID	**3921**	~	1	1	12	*[Configuration] Identification adress for the unit from 1 to 12.
					2-Number	**3922**	~	1	1	12	*[Configuration] Number of units on the BUS. Unit with address N°1 is always the master.
					3-Type	**3923**	List	0	0	6	*Master / Slave relationship: refer to IOM "Climatic section" for details.
					4-Type	**3923**	List	0	0	2	*Configuration of the sharing of the Outdoor humidity and temperature.
			3-BMS	**3930**	1-ID	**3931**	~	1	1	200	*[Configuration] Identification number on the 485 Bus
					2-Watchdog	**3932**	~	0	0	255	*[BMS] Activation of the control by a computer or an automat - mode BMS is activated if this value is different from zero, This value is decreased every second
					3-BMS Unoc.	**3933**	On/Off	~	Off	~	*[BMS] Cancel the override unnocupied mode
					4-Speed	**3934**	On/Off	~	Off	~	*Blower Speed Control in the dead zone: [ON] the unit runs in Low Speed mode [OFF] the unit runs in High Speed mode

SAFETY AND ERROR CODES

Table 14

CODE	DESCRIPTION LIGNE1	DESCRIPTION LIGNE2
1	Air Flow	Failure
4	Filters	Dirty
5	Filters	Missing
11	Electrical Heater	Faulty
12	Supply Air	Over Temp.
13	Room	Temp. Too Low
14	Gas Burner, 1	Faulty
15	Gas Burner, 2	Faulty
22	Supply Air	Temp. To Below
23	Room	Temp. Too High
31	Humidifier	Faulty
32	Room	Humidity Too Low
33	Room	Humidity Too High
41	Pump	Faulty
81	Room Temperature	Faulty Sensor
82	Room Humidity	Faulty Sensor
83	Outside Temperature	Faulty Sensor
84	Outside Humidity	Faulty Sensor
85	Supply Temperature	Faulty Sensor
86	Condenser Temp.	Faulty Sensor 1
87	Condenser Temp.	Faulty Sensor 2
88	Return or Mixing T.	Faulty Sensor
91	Blower Fan	Faulty
92	Air Condenser	Faulty, System 1
93	Air Condenser	Faulty, System 2
94	Air Condenser	Faulty, System 3
95	Air Condenser	Faulty, System 4
96	Water Condenser	Temp. To Below
97	Water Condenser	Over Temp.
98	Water Condenser	Faulty, Flow
99	Fire / Smoke	Error
111	Air Condenser Temp.	Faulty Sensor, 1
115	Compressor 1	High Pres/Elec.Power
117	Compressor 1	Low Pressure
121	Air Condenser Temp.	Faulty Sensor, 2
125	Compressor 2	High Pres/Elec.Power
127	Compressor 2	Low Pressure
131	Air Condenser Temp.	Faulty Sensor, 3
135	Compressor 3	High Pres/Elec.Power
137	Compressor 3	Low Pressure
141	Air Condenser Temp.	Faulty Sensor, 4
145	Compressor 4	High Pres/Elec.Power
147	Compressor 4	Low Pressure

COMMISSIONING

Here is a list of essential points to be checked when commissioning a unit :

- 3111 : switch on and off the unit
- 3113 : cancel any "overrides" set with a DC50
- 3120 : real-time clock
- 3810 : configuration of unit and option
- 3920 : unit ID for multiple unit connections
- Adjust all time zones and corresponding parameters as detailed on page 31 of this IOM
- 3220 : set the anticipation if required
- 3360 : set capacity factor if necessary
- 3620 : set defrost type and parameters
- 3370 / 3410 : set safety limits

This list maybe changed depending on options and features fitted.

It is possible to connect up to 12 CLIMATIC50 with Climalook2 or 8 rooftops equipped with CLIMATIC2 and 12 with CLIMATIC 50 when Climalook 3 or Climalink is installed.

CLIMALINK 2

This product consist in a central unit and a communication interface.
This unit is designed to be connected to a maximum of 12 rooftops fitted with CLIMATIC 50 controllers via a RS485 interface. A connection diagram is provided in the box.
The central unit must be installed in a dry, secured location. Once the unit is connected and powered up, it is entirely automatic and does not require a screen a keyboard or a mouse. After a power failure, the central unit must be restarted using the ON/OFF button.
To avoid this Lennox recommend to connect the central unit to a pulsating current power outlet or "UPS". Lennox cannot be held responsible in the event this recommendation is not acted upon.

CLIMALOOK 2

This product is identical to the CLIMALINK 2 but it is equipped with a 15inch TFT flat screen, a mouse and a numeric keypad to have a local display of the installation. It can be connected to up to 12 CL50 controller via a RS485 interface.

CLIMALOOK 3

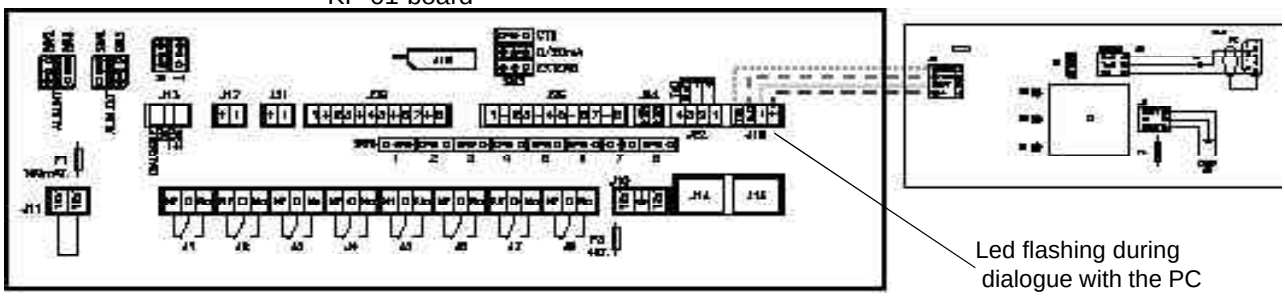
Climalook 3 provides the same features as Climalook 2 as it can be connected to 12 rooftops equipped with CLIMATIC 50 controller but it can also be connected to 8 rooftops fitted with CLIMATIC2 controller and KP01 board (Flexy and Linea already on site).

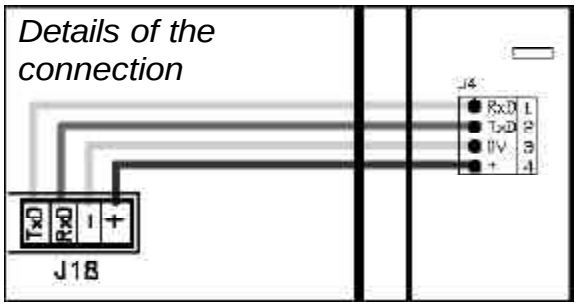
NOTE: In order to connect a unit fitted with CLIMATIC2 you must ensure that the program version is at least LF20. Otherwise it must be upgraded to LF20 before connection to Climalook 3

Climalook uses the internet explorer interface for local operation. The local operating mode is completely automatic and does not require any configuration. Like Climalink, Climalook can receive remote queries thanks to its internal modem and an analogue telephone line. Climalook and Climalink do not work with ISDN telephone lines.

KP 01 board

KP 14 interface





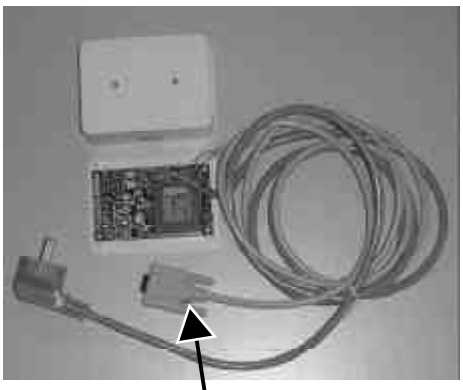
NOTE : To function correctly each RTU requires an address to be set using a KP02 (setpoint 91).
To register in the climatic the power to the climatic must be switched off twice after entering the value.

Whenever the power is switched on it is necessary to wait 5 minutes after the welcome page is displayed to allow the software to fully update.

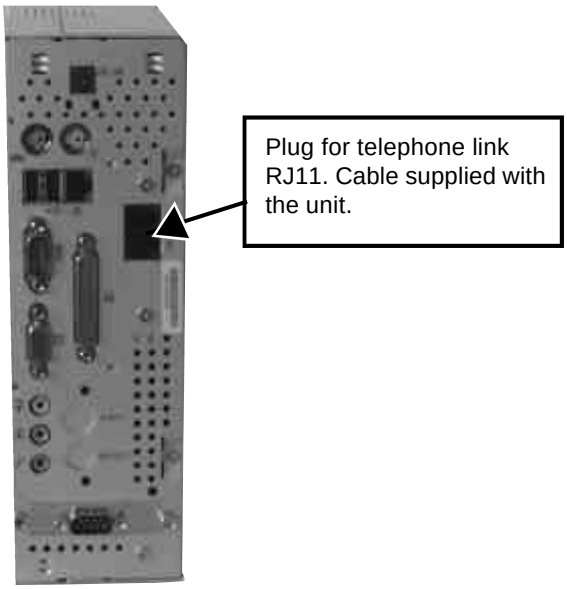
CONNECTION TO CLIMATIC2 and KP01 BOARD

The connections between the units and the Climalink/ Climalook must be done using a double shielded pair of wire (not supplied by Lennox) This cable must have external metal braiding, and its cross-section must be at least 0.5mm2 with a maximum of 1mm2

Each cable will be connected to the COM B port on the KP01 Board, and particular attention must be taken to the order of connections. The cable coming out of the KP14 with a BD9 plug at the end will be connected to the SERIAL Port at the back of the central unit.



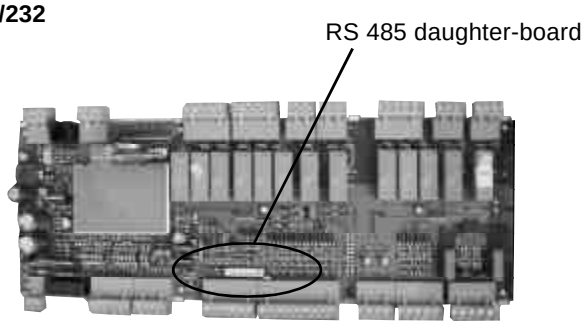
The cable coming out of the KP14 with a BD9 plug at the end will be connected to the SERIAL Port at the back of the central unit.



After the starting procedure of the Climalook 3 central unit, the LED next to the B PORT on the CLIMATIC KP01 board will start to flash. The CPU connects to the boards one after the other , and so it is normal for the LED to stop flashing occasionally.

When all the connections are established, press the on/off button. The programs are launched automatically, and the LED located to the right of the Com B on the CLIMATIC KP01 board should flash.
Note the site telephone number in order to make the remote query.

CONNECTION TO CLIMATICTM 50 USING INTERFACE 435/232

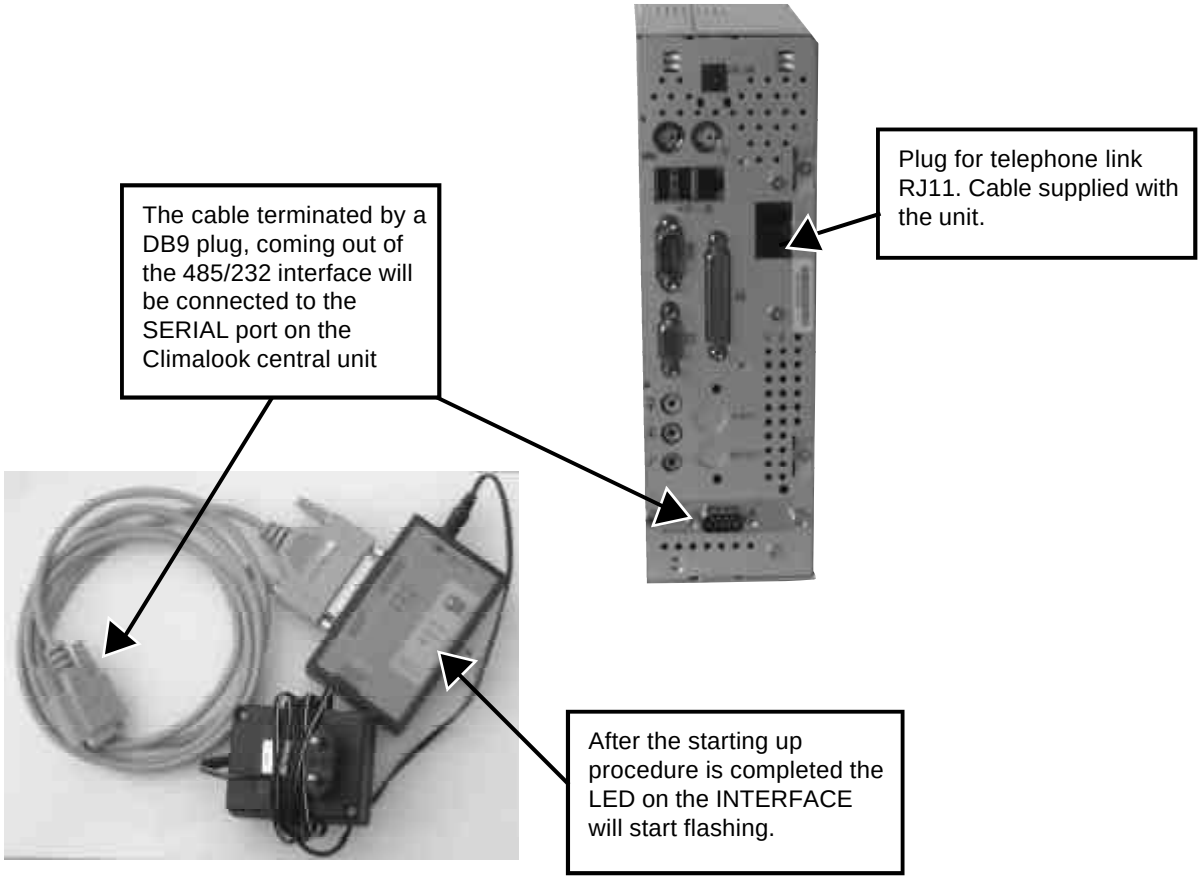


It is possible to connect up to 12 rooftops fitted with CLIMATIC 50 when using a Climalook 3.
The connections between the units and the Climalink/ Climalook must be done using a double shielded pair of wire (not supplied by Lennox) This cable must have external metal braiding, and its cross-section must be at least 0.5mm2 with a maximum of 1mm2

The wires will be connected to each CLIMATIC50 485 ports
You must ensure the connection order is correct:

+ on +,
- on -
and gnd on gnd.

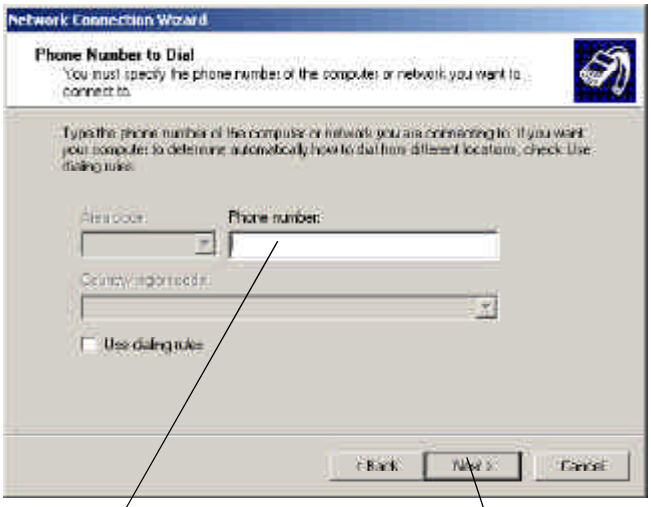
Note the site telephone number in order to make the remote query



SETTINGS FOR THE CONNECTIONS

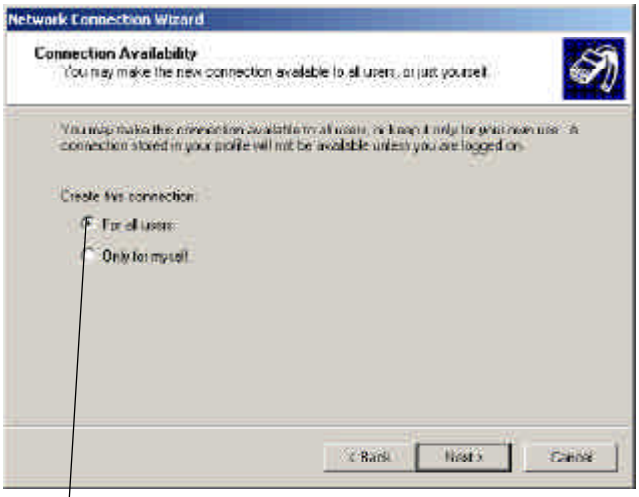
Depending on the version of Windows you are running, access the « Make new connection» function.

Click on next

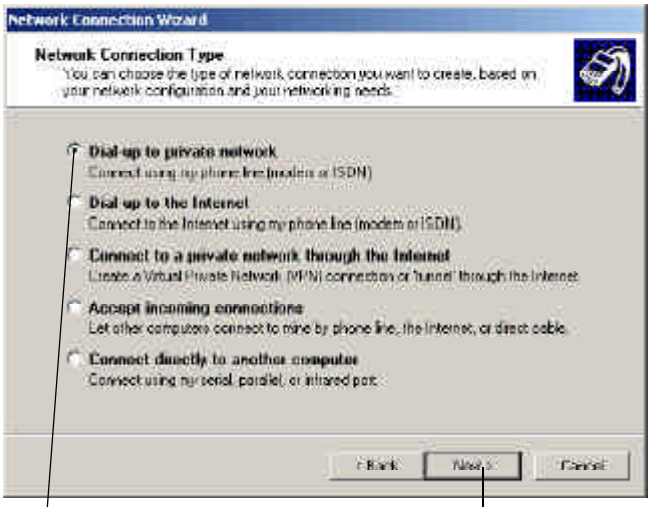


Enter the telephone number to which your ClimaLook's modem is connected.

Click



Click



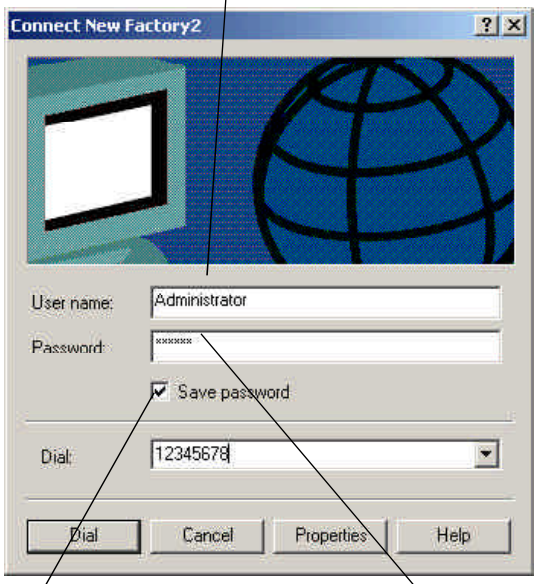
Click

Click on next

Enter the site name

Click on Finish

Type “Administrateur”



Click

Type “VISION”

The modem dials the number, and then the two modems hook up.

In the task bar next to the time display you should see the symbol indicating connection with the remote computer.

On some versions of Windows, a dialogue box may ask you to enter the password again. In this case:

- for User enter Administrateur
- for password enter VISION
- leave the workgroup field empty.

You can now start Internet Explorer.

Type “http:// Lennox” in the Address field

The first time you log in, Windows asks you to confirm your login identifiers:

- for User enter **Administrateur**
- for password enter **VISION**
- leave the workgroup field **empty.**

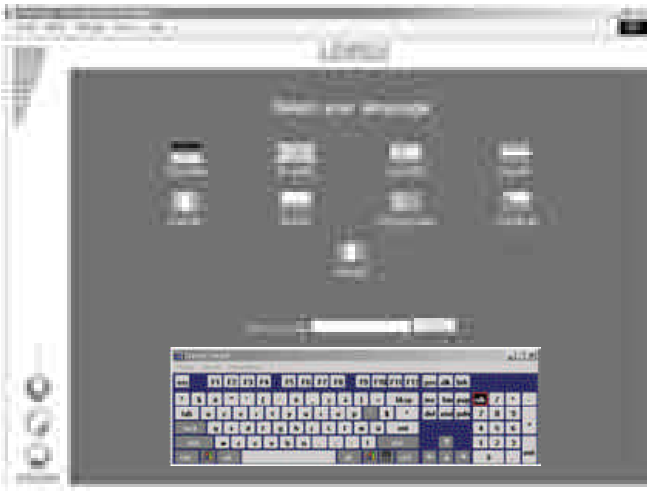
After this formality, you gain access to:

THE WELCOME PAGE

First of all you must lower the virtual keyboard window, before choosing the language.

NOTE : To operate the program it is necessary to minimise the virtual keyboard.

Then click on the flag corresponding to the language you want to use.



Enter your access code and confirm. The access code **999** serves as a temporary code until you have configured your own security code.

If your code is valid you will access the next menu. Otherwise you remain on the same page.

There are three access levels:

1st level: use of the User,

Schedule, Macro and History pages.

2nd level: ditto, plus the Service page.

3rd level: ditto, plus the Access page.

If the local application is not functioning, it is possible you may remain on the same page, even if your access code is valid. In this case, it is necessary to first restart the local central unit before continuing.

THE MAIN PAGE

The colour outline around the roof-top unit and the operating temperatures indicate the unit's status:

Green: Operating mode,

White: Stop mode,

Orange: Night mode,

Red: Fault mode,

This page gives you the basic information about how your installation functions. The roof-top unit's number corresponds to its EPROM number.

Discharge temperature	Ambient temperature

Position the mouse on one of the units to obtain information indicating this unit's status.

If the unit does not exist, is not powered up, or if communication with it is impossible, its icon disappears from the screen. The program attemps to communicate with absent units every ten minutes.

To access a unit's operating details, just click on it once.

20 seconds automatic refresh on this screen.

THE USER PAGE

This is the page used most frequently. It enables you to display and modify a number of settings on your unit.

Use the refresh function to update the values read.

Some settings are read-only, others can be modified.

Read-only setting:

Modifiable setting:

Unit's day and time

The bottom of the page displays the unit currently being queried, and can also be used to change the unit by clicking. This takes you to the user page for the new machine.

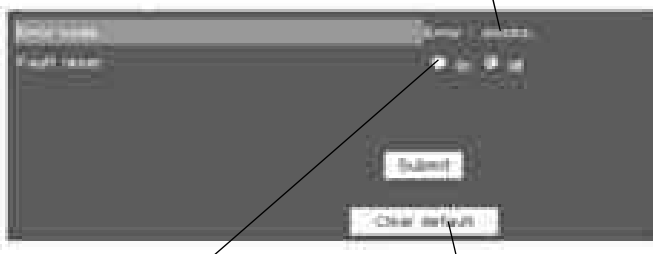
If the unit does not exist, is not powered up, or if communication with it is impossible, its icon disappears from the screen. The program attemps to communicate with absent units every ten minutes.

It is possible modify several settings at the same time.

The settings will only be modified if the «submit» function is confirmed.

If your unit has - or had - a fault, it is outlined in red on the main page. You can use the fault module to trouble-shoot:

If the fault is still present, it is displayed here:



The fault reset function is used to clear the unit's errors if this is possible. If the error persists, the fault returns.

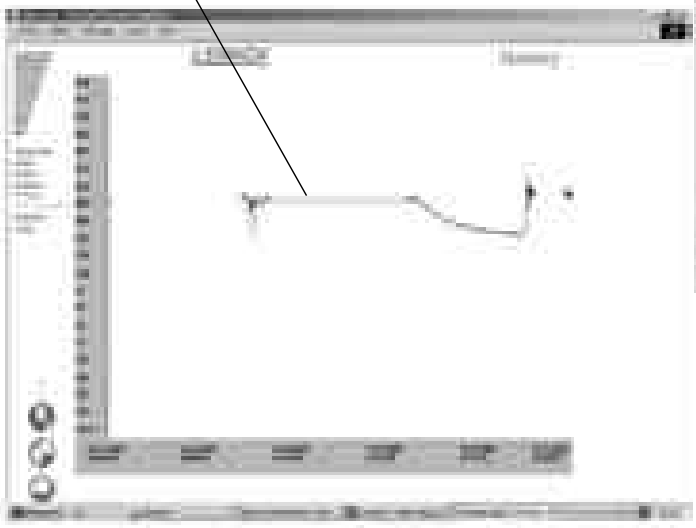
The clear default function is used to reset the software memory of defaults. It does not erase the unit's faults.

For some settings, a small icon is displayed at the end of the line

Click on it to get a history of this setting.

Use the refresh function to update the values read

The empty fields correspond to occasions when the CLIMALOOK / CLIMALINK unit has stopped



- To access the Service page for another unit, simply click on this unit.
- To return to the User page, click on the User menu.
- To access the Schedule page, click on the Schedule menu.

+ Supply temperature / Room temperature / Outdoor air temperature + Faults (last 10 days)

The menus

Welcome page
Main page
Macro page
General History page
Access codes page

To refresh the values

Service page or experienced user

Schedule page which shows all the set points for the different modes.

THE SERVICE PAGE

The Service page is for technical users who know exactly how to adjust air-conditioning units. It is protected by a second level password.

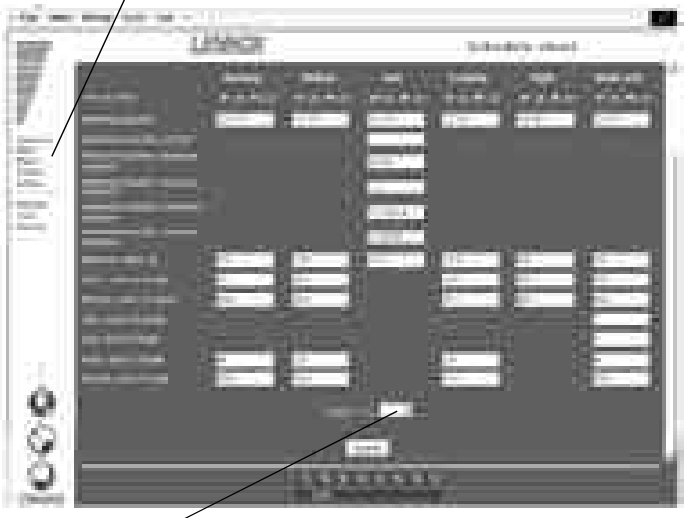
The units are presented in groups, and it is possible to display and modify several settings, as in the User page.

The settings will only be modified if the «submit» function is confirmed.

THE SCHEDULE PAGE

This page is used to display and modify all the configuration settings for each zone of a unit's operating schedule.

Use the refresh function to update the values read.



In addition it is possible to copy all the displayed settings and then paste them in another unit you have chosen.

The settings will only be modified if the «submit» function is confirmed.

THE MACRO PAGE

This page enables you to modify all the units on your site in one action.

You can choose to perform one or more actions.

Modify the value or values you want to submit.

Click on “Submit”

Select “Entire site”

The standard Macros are:
- Adjust the Comfort thermostat
- Set to Night mode
- Set fresh air to the minimum
- Set the time on the Climatic boards.

THE ACCESS PAGE

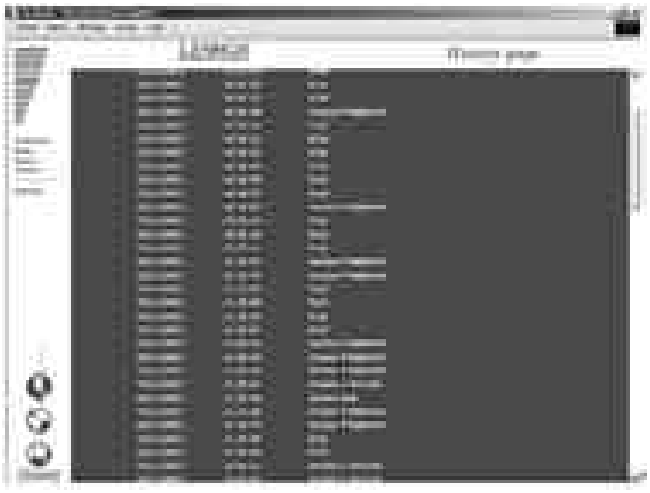
This page enables users who have a third level access code to attribute access codes to other users.

The acccess code 999 is your first access code. Remember to delete it once you have created your own access codes.

To create a new user: Click on nam$_e$

THE HISTORY PAGE

This page is provided in addition to the individual history you’ve already seen in the User page. It tells you when local communication starts and stops, and gives you the users’ access codes.



This is a read-only page. The history is automatically cleared to ensure refreshment doesn’t take too long.

This page will also show units faults.

Use the virtual keyboard on the task bar

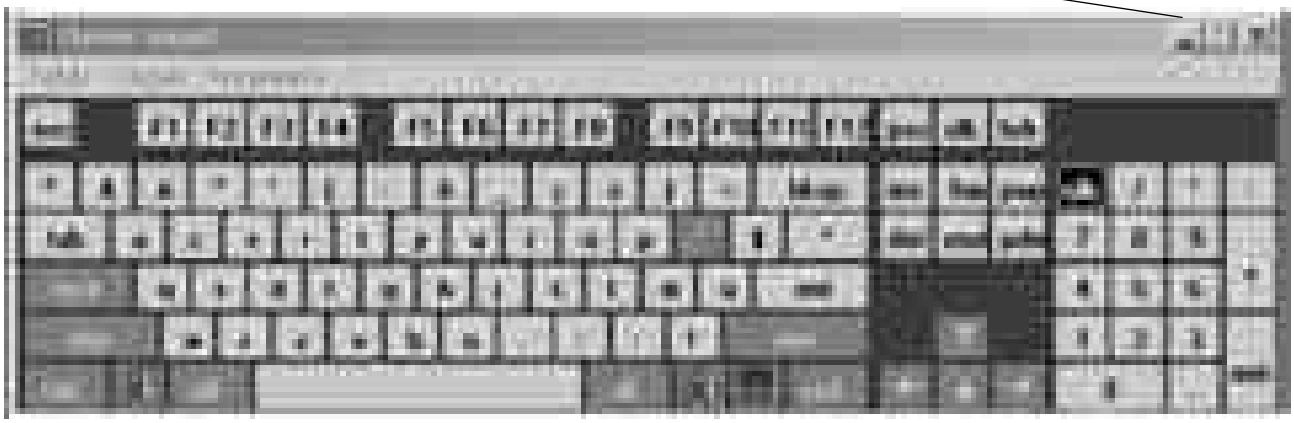
Use the keyboard to enter the name, password (maximum of 4 digits) and the access level.

1 = use of the User, Schedule, Macro and History pages.

2 = same level, plus the Service page.

3 = same level, plus the Access page.

Reposition the keyboard in the task bar by clicking on the minus sign in the top right-hand part of the keyboard.



Confirm by clicking on «Submit»

PROBLEM SOLVING

Impossible to enter your access code, you remain on the welcome page.

Local communication has been interrupted. You must restart the local unit.

After restarting, you must wait for 5 to 10 minutes until the unit is ready to be queried once more.

The values read do not seem to move.

The values are not in fact refreshed automatically, and for all the pages you must use the Refresh function to be sure you are reading the latest values.

The keyboard has disappeared from the task bar.

Click on Start / Programs / StartUp

The local unit is not answering the phone

The local unit is - or was - powered down, and you must press the On/off button. See recommendations at the beginning of the document.

The unit is not connected to a direct analogue phone line.

How to check the ClimaLink is functioning correctly after installation:

Connect up the unit and the KP14

Connect the cables to the J18 inputs on the Climatic boards.

After a few minutes, the central unit should start its dialogue. The LED on the Climatic board to the right of the J18 input should flash.

If this does not happen, check the wiring.

The only way to examine the problem in more detail is to obtain a monitor and a mouse and contact the Lennox services.

After installing a ClimaLook or ClimaLink central unit, it is vital to perform the telephone communication tests.

Take a test telephone set and make sure you have a connection.

Note the telephone number to which the central unit is connected.

Connect the central unit and ask a person on the remote site to test communication.

Obviously the central unit must be the only device installed on the phone line. It cannot share the line with a fax or another modem.

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