

Packing List

Package 1 of 1 contains:

- 1- CD Version 2.08
- 1- Registration card

Application

Network Control Panel (NCP) Software (96L82) is used locally or remotely to monitor the L Connection[®] Network and setup programs with new day schedules and holidays to the NCP.

Holidays, programs, and day schedules can be created off-site, saved to a text file, transported to the job site, and uploaded to the NCP.

IMPORTANT - For serial port connection, PC to L Connection Converter Kit (96L78) is required to access the NCP. Connect the converter between the PC RS232 port and the L Connection network port on the NCP using the spiral phone cord provided with the converter kit.

USER'S MANUAL

NCP Software

MISCELLANEOUS 505,088M 7/2006 Supersedes 504,420M



For dial-up connection, Modem Kit (94L62) is required to access the NCP. Connect the modem kit to the L Connection network bus and a phone line.

For TCP/IP connection, an L Connection Network Ethernet Converter (76M77) is required to access the L Connection Network.

IMPORTANT - If a password has been enabled at the NCP, the same password is required to download NCP programs and settings and clear NCP alarms.

Note - The discharge air temperature displayed in the Unit Status screen may not be accurate. Move the factory-installed sensor further downstream of the discharge air to get a more accurate discharge air reading.





Minimum System Requirements

The following are minimum PC system requirements when operating the Network Control Panel software:

- 1- IBM compatible PC with Pentium or higher processor.
- 2- Microsoft® Windows® 95, 98, Me, NT®, 2000, or XP.
- 3- 256 MB RAM (more memory may be required to run additional applications simultaneously).
- 4- Requires at least 20 MB of free hard drive space.
- 5- VGA or higher resolution monitor (screen resolution must be 800 X 600 or higher and 256 colors).
- 6- CD-ROM drive.
- 7- Mouse or compatible pointing device.
- 8- Serial COM port for serial port connections.
- 9- PC modem for dial-up connections.
- 10- Ethernet port for TCP/IP connections.
- 11- Microsoft Outlook for alarm email notification.
- 12- Microsoft Excel for datalogging and graphing.

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer or service agency.

Installation

Install the NCP software to a PC hard drive:

- 1- Place the CD in the CD-ROM drive and it will auto-run. If the CD does not auto-run, select **Start-Run**, browse the CD, and locate the "Setup.exe" file. Click **OK**.
- 2- Follow the installation instructions on the screen.

Running the Software

Select **Start - Programs - Lennox - Commercial Controls - L Connection Software** or double click the L Connection Software icon on the desktop if one has been created.

If the program is running correctly the following start-up screen will be displayed.

Click on **User's Manual** to view manuals; click on **Network Control Panel Software** to start the NCP software; or click **Exit** to exit program. Select **Network Control Panel Software** to run the software. The main menu will appear.

Note - Unit Controller Software will only appear if it is installed (purchased separately).



Main Menu

Only three selections are active at this time.

Connect to Network with NCP

Select **Connect to Network with NCP** when on-site, plugged into the network.

Build Schedules Offline

This selection is used to create new programs when not connected to the network. New programs may be saved to a file and uploaded to the NCP on-site at a later time.

Open Reports

Access previously created reports.

Open Data Logging Reports

Access previously created data logging reports in Excel.



Connect to Network

Select **Connect to Network**. The Set Parameters screen will appear.

Set Parameters

- 1- For serial port connections, select appropriate COM PORT from the **Connect Using** pull-down menu.
- 2- For dial-up connections, select appropriate modem from the **Connect Using** pull-down menu.
- 3- For TCP/IP connections, select TCP/IP from the **Connect Using** pull-down menu.
- 4- Select the network name to be accessed. If a network list has not already been created, only New Network-Autopoll will be displayed. Network name may be assigned in the Network List.
- 5- Background logging to create a zone temperature and relative humidity chart is enabled by default. Select the box to disable background logging if a temperature and humidity chart is not needed.
- 6- Enter or verify the phone number. Enter any additional numbers to access an outside line or long distance call and disable call waiting.
- 7- Click **Network Phone Book** to access the network phone book database.
- 8- Click **Connect** when ready to communicate. The main menu will appear.



Network Phone Book

The Network Phone Book is used to store information on different networks (network name, address, phone number, and COM port used).

- 1- Select the appropriate network in the list on the left side. Click Edit Network to edit; select Add New Network to add a new network; select Remove Network to remove the network permanently; select Save Network Phone Book As to save the network phone book to a file; select Print Network Phone Book to print book.
- 2- Click **Done** when finished.

)emo	Network Name
lew_Network_AutoPoll	Demo
	Contact Name
	Modem Line Number
	5080
	Voice Line Number
	Address
	Connect Using PCTEL 2304WT V.92 MDC
	Host Address
	Port Number
	To access an outside line / long distance call, o
	To disable call waiting, dial:
<u>E</u> dit Network	Save Network Phone Book As
Add New Network	Print Network Phone Book
	Dava

Open Reports

Select **Open Reports** from the main menu to view or print previously stored reports.

Open Report In Notepad	×
Open from: d:	
Connection	
File name:	OK
File type: Text File (*.txt)	Cancel

Open Data Logging Reports

Select **Open Data Logging Reports** from the main menu to view or print previously generated data logging reports.

Setup Program / Schedule Template

These screens are used to create, view, and edit Holidays, HVAC Programs, HVAC Day Schedules, BC Programs, and BC Schedules.

Network Control Panel Softwar Helo	e - Program, Day Schedu	ule, and H	lolidays	Templa	te				
Holidays HVAC Programs H	IVAC Day Schedules	BC Prog	rams E	BC Day	Schedu	les			
Holiday List									
	Delete Holiday								
		•	Ju	ne		•	2006		
		Sun	Mon	Tue	Wed	Thu	Fri	Sat	
		28	29	30	31	1	2	3	
		4	5	6	7	8	9	10	
		11	12	13	14	15	16	17	
		18	19	20	21	22	23	24	
		25	26	27	28	29	30	1	
		2	3	4	5	6	7	8	
							Add H	oliday	
			,	lote: N	CP can	store u	p to 50	holidays.	
,									
						_			
k the calendar to select the h	olidays and Click Add H	Holiday te	add to	the hol	iday list	Click E	Delete		VOX
iday to erase the holiday sele	cted from the list.							LCON	LECTION
								NET	WORK

Holidays

- 1- Select **Holidays** tab to add or delete holidays. Refer to the following screen.
- 2- To add a holiday, change the calender to the appropriate month, highlight the appropriate day, and click on **Add Holiday**.
- 3- To delete an existing holiday, highlight the holiday in the holiday list and click **Delete Holiday**.

HVAC Programs

This screen shows the programs, day schedules, and holidays for HVAC units.



- 1- Select the program in the Program List to view the settings.
- 2- Select Add Program button to add new programs.
- Select Copy Program button to copy one program to another.

4- Select **Delete Program** button to delete the program from the list.

NOTE - Default programs A and B can be modified but not deleted.

- 5- To edit the day schedule, enter a new number or use the pulldown menu. Press the **tab** or **enter** key to save the new settings.
- 6- Once all Holidays, Programs, and Day Schedule settings are complete, select File-Save NCP Program File to save the new program to a file. Once on-site, refer to the Edit Programs/Schedules section to upload the new program to the NCP.
- 7- Select **File-Open NCP Program** file to view and edit an existing program file.
- 8- Select File-Open Report for Programs, Day Schedules and Holidays to view a previously saved report.
- 9- Select File-Save Report for Programs, Day Schedules and Holiday As to save the current report.
- 10- Select File-Print Report for Programs, Day Schedules and Holidays to print the report.

HVAC Day Schedules

This screen shows the day schedules for HVAC units.

	Day Schedule 1	Edit	Tin	ne		Heat Setpoint	Cool Setpoint	Occupie	d
Schedule	Day Schedule 2	1 7	- : 00	AM	Ŧ	70	74	Yes	-
Conv Day		2 5	- : 00	▼ PM	Y	60	84	No	-
Schedule		3	▼:	-	Ŧ				-
		4		Y	Ψ				-
Schedule		5		-	Ŧ				-
		6		-	Ŧ				-

- 1- Select the day schedule in the Day Schedule List to view.
- 2- Select Add Day Schedule button to add a new day schedule.
- 3- Select **Copy Day Schedule** button to copy one day schedule to another.
- 4- Select **Delete Day Schedule** button to delete a day schedule (schedules 1 and 2 cannot be deleted).
- 5- Select the **Edit** button to the left of the time fields to edit the time, heat setpoint, cool setpoint, and occupied settings. Press the **tab** or **enter** key to save the new settings.
- 6- Select the **X** button to the right of the occupied field to delete the time in that row. The time in the first row cannot be deleted for all day schedules.

- 7- Once all Holidays, Programs, and Day Schedule settings are complete, Select File-Save NCP Program File to save the new program to a text file. Once on-site, refer to the Edit Programs/Schedules section to upload the new program to the NCP.
- 8- Select **File-Open NCP Program File** to view an existing program file.
- 9- Select File-Open Report for Programs, Day Schedules and Holidays to view a previously saved report.
- 10- Select File-Save Report for Programs, Day Schedules and Holiday As to save the current report.
- 11- Select File-Print Report for Programs, Day Schedules and Holidays to print the current report.

BC Programs

This screen shows the programs, day schedules, and holidays for Building Controllers.



- Select the program in the Program List to view the settings.
- 2- Select Add Program button to add new programs.
- 3- Select **Copy Program** button to copy one program to another.
- 4- Select **Delete Program** button to delete the program from the list.
- NOTE Default programs A and B can be modified but not deleted.
- 5- To edit the day schedule, enter a new number or use the pulldown menu. Press the **tab** or **enter** key to save the new settings.
- 6- Once all Holidays, Programs, and Day Schedule settings are complete, select File-Save NCP Program File to save the new program to a file. Once on-site, refer to the Edit Programs/Schedules section to upload the new programs to the NCP.
- 7- Select **File-Open NCP Program** file to view and edit an existing program file.

- 8- Select File-Open Report for Programs, Day Schedules and Holidays to view a previously saved report.
- 9- Select File-Save Report for Programs, Day Schedules and Holiday As to save the current report.
- 10- Select File-Print Report for Programs, Day Schedules and Holidays to print the report.

BC Day Schedules

This screen shows the day schedules for Building Controllers.

Retwork Conti	ol Panel Software - Progr	am, Day Schedul	e, and Holiday	s Template			_ 🗆 🗙
File Help							
Holidays HV/	AC Programs HVAC Da	y Schedules B	C Programs	BC Day Scl	nedules		
	· ·						
	BC Day Schedule List						
Add Day	Day Schedule 1	Edit	Time	•	Ac	tion	
Schedule	Day Schedule 2	1 7	-:00	- AM	- On	- X	
Copy Day Schodulo		2 3	<u> </u>				
Schedule		3		~	~	<u>→</u> X	
Dalata Day		4	- :	-	-	- X	
Schedule							
Click the day cel	adula in the list to view i	to cottingo					MALON
click the day sci	requie in the list to view i	is settings.				LE	NNUX
							NETWORK

- 1- Select the day schedule in the Day Schedule List to view.
- 2- Select Add Day Schedule button to add a new day schedule.
- 3- Select **Copy Day Schedule** button to copy one day schedule to another.
- 4- Select Delete Day Schedule button to delete a day schedule (schedules 1 and 2 cannot be deleted).
- 5- Select the **Edit** button to the left of the time fields to edit the time and action settings. Press the **tab** or **enter** key to save the new settings.
- 6- Select the **X** button to the right of the occupied field to delete the time in that row. The time in the first row cannot be deleted for all day schedules.
- 7- Once all Holidays, Programs, and Day Schedule settings are complete, Select File-Save NCP Program File to save the new program to a text file. **Once on-site**, **refer to the Edit Programs/Schedules section to upload the new program.**
- 8- Select File-Open NCP Program File to view an existing program file.
- 9- Select File-Open Report for Programs, Day Schedules and Holidays to view a previously saved report.
- 10- Select File-Save Report for Programs, Day Schedules and Holiday As to save the current report.
- 11- Select File-Print Report for Programs, Day Schedules and Holidays to print the current report.

Live Overview

Select Live Overview from the main menu. This screen shows all the HVAC units/zones/building controllers found in the network and gives an overview.

Note - This screen is in a "listening" mode and will update as the status changes.

	Туре	Desciption	CSP	ZON	HSP	RH	CO2	Damper	OA Damper	RAT	DAT	000	Prog	Status
01	HVAC Unit									76 ºF	56 °F			Idle
	Zone 01			78 *F			259ppm					No	TStat	Idle
02	HVAC Unit								96 %	79 °F	184 °F			Cooling
	Zone 01		74 °F	77 °F	70 °F	24 %	494ppm					Yes	A	Cooling
03	HVAC Unit								44 %	81 ºF	51 ºF			Cooling
	Zone 01		74 °F	76 *F	70 °F		392ppm					Yes	в	Cooling
84	HVAC Unit								8 %	82 °F	80 °F			Alarm
	Zone 01			70 °F			525ppm					Yes	TStat	klie
05	HVAC Unit								0 %	76 ºF	68 °F			Alarm
	Zone 01		85 *F	76 *F	60 °F		314ppm					No	Man	idie
86	Building Controller													Online
07	HVAC Unit								14 %	67 ºF	56 °F			Cooling
	Zone 01		74 °F	78 °F	70 °F	56 %	525ppm					Yes	Mon	Cooling
08	HVAC Unit								0 %	80 °F	54 °F			Alarm
	Zone 01		74 °F	79 *F	70 °F		259ppm					Yes	Man	Cooling
89	HVAC Unit								8 %	78 ºF	56 °F			Cooling
	Zone 01		74 °F	79 °F	70 °F	100 %	0 ppm	100 %				Yes	A	Cooling
	Zone 02		74 °F	80 °F	70 °F	43 %	0 ppm	100 %				Yes	в	Cooling
	Zone 03		78 °F	81 "F	75 °F	100 %	0 ppm	100 %				Yes	с	Cooling
32	HVAC Unit								8 %	79 ºF	56 °F			Alarm
	Zone 01		74 °F	81 °F	70 °F		251ppm					Yes	E	Cooling
33	HVAC Unit								0 %	80 °F	54 °F			Alarm
	Zone 01		74 °F	81 "F	70 °F		243ppm					Yes	Man	Cooling
34	HVAC Unit								8 %	80 °F	65 °F			Cooling
	Zone 01		74 °F	80 °F	70 °F		259ppm					Yes	Man	Cooling
35	Building Controller													Online
36	HVAC Unit								8 %		56 °F			Cooling
	Zone 01		74 °F	78 *F	70 *F	40.%	753nnm					Yes	A	Cooling

- 1- View individual HVAC unit/zone/building controller status, alarm, and chart, by double clicking on the "Type" to the left of the appropriate address.
- 2- Select File-Rename Network to rename and save network information in the network phone book.
- 3- Select File-Open Status Report to view a previously saved report.
- 4- Select File-Save Status Report As to save a report.
- 5- Select File-Print Status Report to print a status report.
- 6- Select File-Back to NCP Main Menu to return to main menu.

Status, Alarms, and Chart

These screens show the status, alarms, and chart for the address highlighted in the NCP Network list only.

When the highlighted address is for an HVAC unit or zone, these screens show the status (compressors, number of stages, thermostat or zone sensor mode, etc.), alarms, and temperature/humidity chart for the zone selected.

update as un	it status	changes.	Ū		
Retwork Control Panel Softwa	are - Demo (NCP Versi	on 2.00)			>
File Help					
NCP Network: Demo H 01 HVAC Unit	Address: 09-Gas/Ele Note: This screen is in a Status Alarms	ectric RTU a "listening" mode and will update : Chart]	as status changes.	Controller Type: IM Reset Controller	C 5.03 ▼ Send
Zone 01	-Remote Demar	on Control Mode with Retu	rn Air Sensor hack		
Zone 01 03 HVAC Unit Zone 01	Status	Cooling			
D 04 HVAC Unit Zone 01	Compressor		Zone 1 Status	Cooling Normal	
D 05 HVAC Unit Zone 01	Heating Stage		Zone Sensor 1	Temperature	
06 Building Controller			79 °	F	

Note - These screens are in a "listening" mode and will

	Downto Downard Control Made with Date	and the Common to a dama	-1
- OZ HVAC Unit	Remote Demand Control Mode with Rett	arn An Sensor backup	11
- Zone 01	Ctatus Occulian		
B 03 HVAC Unit	Status Cooling		
-Zone 01		7 10 1 0 1	
E 04 HVAC Unit	Compressor	Zone 1 Status Cooling	
-Zone 01	· ·	Normal	
05 HVAC Unit			
-Zone 01	Heating Stage	Zone Sensor Lemperature	
-06 Building Controller		79 °F	
B 07 HVAC Unit	Blower On		
-Zone 01		Heating Setpoint /U **	
B 08 HVAC Unit		Cooling Setupint 74 °F	
-Zone 01	Economizer None		
09 HVAC Unit		Occupied Yes	
Zone 1	New Alarm None	Program A	
-Zone 2	Filter Timer Check		
-Zone 3		CO2 U ppm	
B 32 HVAC Unit		RH 100 %	
-Zone 01	Return Air Temperature 78 °F		
E 33 HVAC Unit	Discharge Air Temperature 56 °F	Damper Position 100 %	
-Zone 01		VAV Box Fan Off	
E 34 HVAC Unit	Outdoor Air Temperature 89 %		
-Zone 01	RH Setpoint 60 %	VAV Box Heat Uff	
- 35 Building Controller			
B 36 HVAC Unit	<u></u>		<u> </u>
-Zone 01			_
	Click the HVAC/Controller in the list box on the	e left to view the HVAC/Controller	١I
	status.	LLININOA	2
		L CONNECTIO	N

When the highlighted address is for a Building Controller, these screens show the status (outputs, temperatures, and analog inputs) and alarms of the Building Controller selected.

File Help	
NCP Network:	Address 00 Duilding Controller
ALC HEWARL Data 01 1200 1200 01 1200 101 102 101 102 103 104 105 105 106 107 108 101 101 101 <t< th=""><th>Address: 06-Building Controller Yue: BC-101 Address: 06-Building Controller Yue: BC-101 Address: 06-Building Controller Yue: BC-101 Net: This core in a "listening" mode and will update as status changes: Status Alarms Chart Outputs Outputs Person Controller Yue: BC-101 Person Con</th></t<>	Address: 06-Building Controller Yue: BC-101 Address: 06-Building Controller Yue: BC-101 Address: 06-Building Controller Yue: BC-101 Net: This core in a "listening" mode and will update as status changes: Status Alarms Chart Outputs Outputs Person Controller Yue: BC-101 Person Con
- Zone 01 - Zone 01 - Zone 01 - Zone 1 - Zone 2 - Zone 3	Dutput 6 Man Off Dutput 7 Man Off Dutput 7 Man Off Dutput 8 Man Off Dutput 1 2.6 V Anning input 2 10.0 V Dutput 8 Man Off Anning input 3 Object 1 7.8 V
32 HVAC Unit 20ne 01 33 HVAC Unit 20ne 01 34 HVAC Unit 20ne 01 35 Building Controller 36 HVAC Unit 20ne 01	Optimization Off Light Sensor Dark Digital input 2 Off New Alarm None Digital input 3 On Digital input 4 Off
Zone 01	Click the HVAC/Controller in the list box on the left to view the HVAC/Controller

Status

- 1- View the status of other addresses by selecting a different address in the NCP Network list.
- Select File-Retrieve Alarms to retrieve alarms. Alarms screen is not accessible before downloading alarms.
- 3- Select File-Enable Alarm Email Notification to setup the alarm email notification options.
- 4- Select File-Open Status/Alarm Report to view a previously saved status or alarm report.
- 5- Select File-Save Alarm Report As (All Addresses) to save an alarm report for all addresses in the network. Alarms must be retrieved from the NCP before this selection is available.
- 6- Select **File-Print Alarm Report (All Addresses)** to print an alarm report for all addresses in the network. Alarms must be retrieved from the NCP before this selection is available.
- 7- Select File-Save Status Report As (All Addresses) to save a report.
- 8- Select File-Print Status Report (All Addresses) to print a status report.
- 9- Select File-Back to NCP Main Menu to return to main menu.

Note - The discharge air temperature displayed in the Status screen may not be accurate. Move the factory-installed sensor further downstream of the discharge air to get a more accurate discharge air reading.

Alarms

- Select File-Retrieve Alarms from the Status screen before viewing alarms. Select the Alarms tab to view alarms.
- 2- Select the alarm to view a detailed description of the problem and the resulting action.
- 3- Highlight other addresses in the NCP Network list to view the alarms of other addresses on the network.
- 4- Select Clear Alarms to delete all alarms stored in the NCP memory for the unit highlighted in the NCP Network list. If a password has been enabled in the NCP, a prompt will request the password.
- 5- Select **Save Alarms** to save the current alarms to a text file.
- 6- Select Print Alarms to print the current alarms.
- 7- Select the Status tab to view the status.
- 8- Select File-Open Status/Alarm Report to view a previously saved report.
- 9- Select File-Save Alarm Report As (All Addresses) to save an alarm report for all addresses in the network. Alarms must be retrieved from the NCP before this selection is available.
- 10- Select **File-Print Alarm Report (All Addresses)** to print an alarm report for all addresses in the network.

Alarms must be retrieved from the NCP before this selection is available.

- 11- Select File-Save Status Report As (All Addresses) to save a report.
- 12- Select File-Print Status (All Addresses) to print a status report.
- 13- Select File-Back to NCP Main Menu to return to main menu.



Chart

- 1- Select the Chart tab to view a log of zone temperature and relative humidity readings.
- 2- View the temperature and humidity charts of other units by selecting a different address in the NCP Network list.
- 3- The NCP software has to be running to create a chart. A chart will display up to 10 hours of temperature and humidity readings.
- 4- Select File-Start/Stop Background Log (All Zones) to start or stop the temperature and humidity log. Logging is enabled by default; if a chart is not needed it can also be disabled from the Set Parameters screen.



Alarm Email Notification

- 1- Highlight a unit controller to view the list of alarms. Select the alarms from the list to receive email notification when the alarm occurs for the highlighted controller. All alarms can be selected for the highlighted controller by clicking the Select All Alarms button. All the lockout alarms can be selected for the highlighted controller by clicking the Select Lock Out Alarms Only button.
- 2- Check the **Enable Alarm Email Notification** checkbox to activate the email notification feature.
- 3- Enter the email addresses where the alarm email notifications will be sent. Multiple addresses must be separated by a semicolon.
- 4- Click the **Done** button when finished.



Data Logging and Graphing



- 1- Select the data to be logged for the highlighted unit/zone.
- 2- Setup the data logging rate by choosing the logging interval, logging period, and start date/time. PC date/time can be used by checking Use PC Date & Time checkbox. This will start the data logging immediately after clicking Start Logging button.
- 3- Enter a filename for the data logging file.
- 4- Click Start Logging button to start logging data.
- 5- A progress bar shows the data logging status.

🔀 16.67% - Data Logging Progress	
	Excel

- 6- Logging can be stopped at anytime by clicking **Stop** button.
- 7- Click **Excel** button to view the logged data and graph.

Synchronize

Select **Synchronize** to retrieve settings, programs, schedules, and holidays from the NCP. If a password has been enabled in the NCP, a prompt will request the password.

Edit Programs/Schedules

Note - Select **Synchronize** from the main menu before accessing this screen.

Setup

Select Edit Programs/Schedules from the main menu.

These screens show the zone setup for the address highlighted in the NCP Network list only.

When the highlighted address is for an HVAC unit, this screen shows the zone setup (sensor temperature, setpoints, NCP mode, control mode, etc.) of the HVAC unit selected. To access the zone setup on more than one zone, select a zone from the drop down box.

Help	Special Fuents HY/AC Programs	HYAC Day Schedules BC Pro	mams BC Day Schedules	Synchroniz
NCP Network 10 HVAC Unit 20 HVAC Unit 30 HVAC Unit 30 HVAC Unit 30 HVAC Unit 30 HVAC Unit 30 HVAC Unit 31 HVAC Unit 33 HVAC Unit 33 HVAC Unit 35 HVAC Unit	Address: 09-Gav Flectic RTT Remote Demand Control Mod Zone 01 Manual Mode Settings: Heating Setpoint 70 Cooling Setpoint 74 Overde Program HVAC Description	U e with Return Air Sensor bac NCP Mode Control Control Mode Manual Occupied Yes	Controller Type	y settings her zones

Note - This screen is a "snapshot" of the data available at the time of the synchronize.

When the highlighted address is for a Building Controller, this screen shows the status and setup (outputs, temperatures, and analog inputs) of the Building Controller selected.

etup Holidays	Special Events	HVAC Programs	HVAC Day Sche	dules	BC Prog	grams	BC Day Schedul	es Synchron
NCP Network 101 HVAC Unit 102 HVAC Unit 103 HVAC Unit 104 HVAC Unit 105 HVAC Unit 105 HVAC Unit 106 HVAC Unit 106 HVAC Unit 107 HVAC Unit 108 HVAC Unit 108 HVAC Unit	Address: 0 Building C BC Descri Outputs = Outputs = Outputs = Output 3 Output 4 Output 5 Output 6 Output 6	6-Building Contr Controller ption F F F F F F F F F F F F F F F F F F F	rogram Marual V Marual V Marual V Marual V Marual V Marual V Marual V Dark		Status If V If V	- Tem Temp Temp Temp Temp Anal	Controller Ty peratures wareture 1 wareture 2 overdure 3 org hputs org hput 2 org hput 3	pe: BC 1.01 31 F -3 F 71 F 73 F 28 V 100 V 7.8 V

Note - This screen is a "snapshot" of the data available at the time of the synchronize.

- 1- Select other addresses in the NCP Network List to view the Setup of other addresses on the network.
- 2- Use the **tab** or **enter** key after changing a setting to save the new setting. The tab key is also used to toggle through the Unit Setup fields.
- 3- Select Synchronize to send all changes to the NCP.

IMPORTANT - Time and date should already be set at the NCP. If not, see Edit NCP Settings to set time and date.

- 4- Select **File-Open NCP Program File** to load the programs from a previously saved file.
- 5- Select File-Save NCP Program File to save the current programs to a text file.
- 6- Select File-Open Report for Status, Programs and Day Schedule to view a previously saved report.
- 7- Select File-Save Report for Status, Programs and Day Schedule As to save a report of all programs.
- 8- Select File-Print Report for Status, Programs, and Day Schedule to print a report of all programs.
- 9- Select **File-Exit** to exit the program. Make sure changes have been sent before exiting.

NCP Mode (HVAC Units)

This field displays and edits whether the NCP is set to control or monitor the unit. When "Control" is displayed, the NCP is controlling the setpoints. When "Monitor" is displayed, the NCP is monitoring the unit only and not controlling the setpoints.

NOTE - The monitor mode option is mostly for future use and in most cases this mode should be set to control. If used, the unit will operate on the IMC or NTC ECTO back-up setpoints.

When control mode is selected, programs can be assigned and manual setpoints can be changed.

NOTE - If the L Series unit is set in the local thermostat mode, the NCP can't be changed to the control mode. If the control mode is desired, the IMC must be set to the zone sensor mode by adjusting ECTO parameter 6.01. Refer to the IMC manual.

Control Mode (HVAC Units)

This field displays and edits which program is assigned to the unit. The program choice can be selected from the pull-down menu. The manual choice is selected for manual operation. If manual is selected, the setpoints in the "Manual Mode Settings" field will be used.

Override / Resume Program (HVAC Units)

Toggle the Override/Resume Program button to allow or disallow the NCP to override program settings.

Click the Override Program button to change heating and cooling setpoints when control mode is running a program. "Override" will be displayed to the right of the program setting when override is enabled. Override range and length of time is set in the NCP Control Settings.

Click the Resume Program button to cancel override and resume running the assigned program.

Special Events

- 1- Select Special Events tab to add or delete special events.
- 2- To add a special event, name the event, select a controller, set the date, start time, and duration for the event, and click on Add Event.
- 3- To delete an existing event, highlight the event in the list and click on Delete Event.



Holidays, Programs, Day Schedules

Edit Holidays, Programs, and Day Schedules in the same manner as described in the Setup Program/Schedule Template section. Once all of the desired settings have been edited, select **Synchronize** to send all changes to the NCP. Select **Save NCP Program File** to save settings to file.

Edit Settings

Note - Select Synchronize from the main menu before accessing this screen.

Time, Date, Control Settings, Password

Select Edit Settings from the main menu. This screen shows the NCP time and date, control settings, and password options.

Note - This screen is a "snapshot" of the data available at the time of the synchronize.

Time, Date

- 1- Select each field to edit time and date.
- 2- Once all of the desired NCP settings have been edited, select **Synchronize** to send all changes to the NCP.
- 3- Select **File-Save Report for Control Settings As** to save a report of all setting changes to a text file.
- 4- Select **File-Print for Control Settings** to print a report of all setting changes.
- 5- Select File-Exit to exit the program.

icNetu File H	work Con elp	trol Panel	Software	- Panel Co	ontrol Sett	ings	_	
Time	Time, Date Control Settings Change Password Synchronize						e	
NCP Time: 1 : 25 : 29 PM V								
Current PC Time:D1:37:38 PM Match NCP Time, Date with PC Time, Date NCP Date: Daylight Saving Time: Apr/Oct								
E	•	Ju	ne		-	2006		
	-Sun-	-Mon-	Tue	-Wed-	Thu	— Fri	Sat	
	28	29	30	31	1	2	3	
	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	
	18	19	20	21	22	23	24	
	25	26	27	28	29	30	1	
	2	3	4	5	6	7	8	
Click the field to edit. When you finish, click the Synchronize button to send the changes to NCP.								

Control Settings

This screen shows the NCP control settings (temperature units, override range, override timer, filter time, BC maximum override time, and BC setpoint recovery stagger).

- 1- Select each field to edit the control settings.
- 2- Once all of the desired NCP settings have been edited, select **Synchronize** to send all changes to the NCP.
- 3- Select File-Save Report for Control Settings As to save a report of all setting changes to a text file.

- 4- Select **File-Print for Control Settings** to print a report of all setting changes.
- 5- Select File-Exit to exit the program.

Temperature Units	°F 💽			
Override Range	+/- 2 °F			
Override Timer	2:00 • hrs			
Filter Run Time	30 days			
BC Override Max	0:00 v hrs			
Recovery Setpoint Stagger	0:15 v mins			

Change Password

This screen shows the NCP password. The password can be disabled or changed at this screen.

- 1- Enter a new password and confirm using the same password.
- 2- Once all of the desired NCP settings have been edited, select **Synchronize** to send all changes to the NCP.
- 3- Select **File-Save Report for Control Settings As** to save a report of all setting changes to a text file.
- 4- Select **File-Print for Control Settings** to print a report of all setting changes.
- 5- Select File-Exit to exit the program.

🔀 Network Control Panel Software - Panel Control Settings 📃 📃 🗙				
File H	elp			
Time	e, Date Control Settings	Change Password Synchroniz		
	Current Password			
		Clear Change		
	New Password			
	Confirm Password			
		Done Cancel		
Click th to sen	ne field to edit. When you finish, o d the changes to NCP.	click the Synchronize button)	

Frequently Asked Questions					
	Question	Answer			
		1-Make sure there is not another PC connected to the same network.			
1	Software cannot establish a connection using TCP/IP.	2-Check the LED (10MB Link/Activity LED for 10MB LAN, 100MB Link/Activity LED for 100MB LAN) on the L Connection network ethernet converter. It should be green if it is linked properly to the LAN. (Use the LED Indicator Table in the L Connection Network Ethernet Converter Manual for reference.)			
		3-Ping the L Connection Network ethernet converter using the assigned IP address. If there is no response, consult the L Connection Network Ether- net Converter Manual to access the converter setup mode to make sure the IP address is set correctly.			
2	PC has a USB port but no serial port.	A USB serial adapter can be used to convert the USB port to a serial COM port. In most cases, a CD is used to install the software before plugging in the adapter. After the adapter is installed, reboot the PC. Select the new COM port in the COM Port/Modem pull-down menu when connecting to the network. The following adapters are tested and recommended: USB Serial Adapter (www.deluo.com/1-877-885-9090) or Belkin USB/Serial Portable Adapter (part no. F5U409-CU from CompUSA).			
		Important - Read the manufacturer's installation instructions carefully before setting up the adapter.			
3	The year on the calendar displays "2075" instead of the current date when using the Setup Programs/Schedules	Fix For Win 95, Win 98, or Win ME:			
	Template under the Holiday tab.	2-Go to Start->Run			
4	When adding a holiday, run-time error "Automation Element Not Found" is dis- played and the program crashes.	3-Enter regsvr32 C:\Windows\system\mscal.ocx 4-Select OK			
_	When accessing Edit Programs/Sched- ules or Edit Settings, error message "Some data is missing from the pre-	5-A window will display "D11RegisterServer in C:\Windows\sys- tem\mscal.ocx succeeded."			
5	vious download is displayed. Down-	Fix For Win NT, Win 2000, or Win XP:			
	lected again and the error message re-	1-Save mscal.ocx from the CD software folder into C:\WINNT\system32\ 2-Go to Start->Run			
	When accessing calendar control in	3-Enter regsvr32 C:\WINNT\system32\mscal.ocx			
	Edit Programs/Schedules or Edit Set-	4-Select OK			
6	tings, a runtime error "Automation Ele-	5-A window will display "D11RegisterServer in			
	program crashes.	C. WINN NSYSTEMSZ (MSCal. ocx succeeded.			
7	The program won't run because Teleph- ony Application Program Interface (TAPI) is out of date.	This problem will only happen if using Windows 95. Run tapi2195.exe under the Software folder in the CD to update system TAPI. IMPORTANT: tapi2195.exe is for Windows 95 ONLY.			
8	Accidentally run tapi2195.exe in operat- ing system other than Windows 95.	Re-install the operating system.			
9	The program won't view or link to the user's manuals.	Make sure Adobe Acrobat Reader is version 4.0 or higher. Adobe Acrobat Reader 4.05 (ar405eng.exe) can be found under the Software folder in the CD.			

		Serial Port Connections:				
		1-Check the connection between the L Connection Converter and PC serial port. Check the connection between the L Connection Converter and L Connection network port.				
		2-Reset the NCP or wait five minutes before running the program again.				
		3-Make sure the PC to L Connection Converter is catalog number 96L78; other interface converters may not work properly.				
		4-Make sure the correct COM port has been used.				
		5-Restart the computer.				
		Dial-Up Connections:				
10	NCP software can't find an existing NCP in the network.	1-Make sure the correct modem is used. The modem kit connected to the L Connection bus must be 94L62; the PC modem recommended is a USR 56K Faxmodem (model number 005686-03, 3CP5610A, 3CP5699A, 005687-03, USR5686E, USR5610B, & USR5699B).				
		2-Make sure modems are installed correctly.				
		3-If the PC has more than one modem, make sure the appropriate modem is selected.				
		TCP/IP Connections:				
		1-Check the connection between the L Connection Network ethernet con- verter and the modem converter.				
		2-Make sure the LEDs on the L Connection modem converter (near the ter minal block) are blinking during communication.				
		3-Make sure the L Connection daisy chain network polarity is correct.				
11	The modem won't dial.	Refer to the user's manual provided by the modem manufacturer for trouble- shooting information.				
12	Communication to the network is inter- rupted or the PC crashed when running the program.	Reset the NCP or wait five minutes before running the program again.				
13	Incorrect discharge air temperature reading during heating.	Move factory-installed discharge air temperature sensor further down- stream of discharge air.				
14	The Status screen indicates two stages of heating when only one stage is operating.	Some units such as the 3-5 ton, only have a single stage gas valve. Disregard the second-stage circle.				

For further assistance contact Lennox Technical Support at 1-800-4-LENNOX (1-800-453-6669).

Worksheets

For convenience and future reference, use the following tables when determining address descriptions and BC Input and Output names. Refer to the Setup screen in the Edit Programs/Schedules section. Make copies of the blank tables as needed.

Address	Description (20 character maximum)	Addres	s Description (20 character maximum)
01		17	
02		18	
03		19	
04		20	
05		21	
06		22	
07		23	
08		24	
09		25	
10			
11		26	
12		27	
13		28	
14		29	
15		30	
16		31	

HVAC Address Description

BC Address Description and Input/Output Names

Address	BC Description (20 character maximum)		
Output No.	Output Name (14 character maximum)	Input No.	Temperature Input Name (14 character max.)
1		1	
2		2	
3		3	
4		4	
5			Analog Input Name (14 character maximum)
6		1	
7		2	
8		3	
		Light Sensor	