

Strong International Host Program

Operators Manual



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**Preliminary
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Introduction

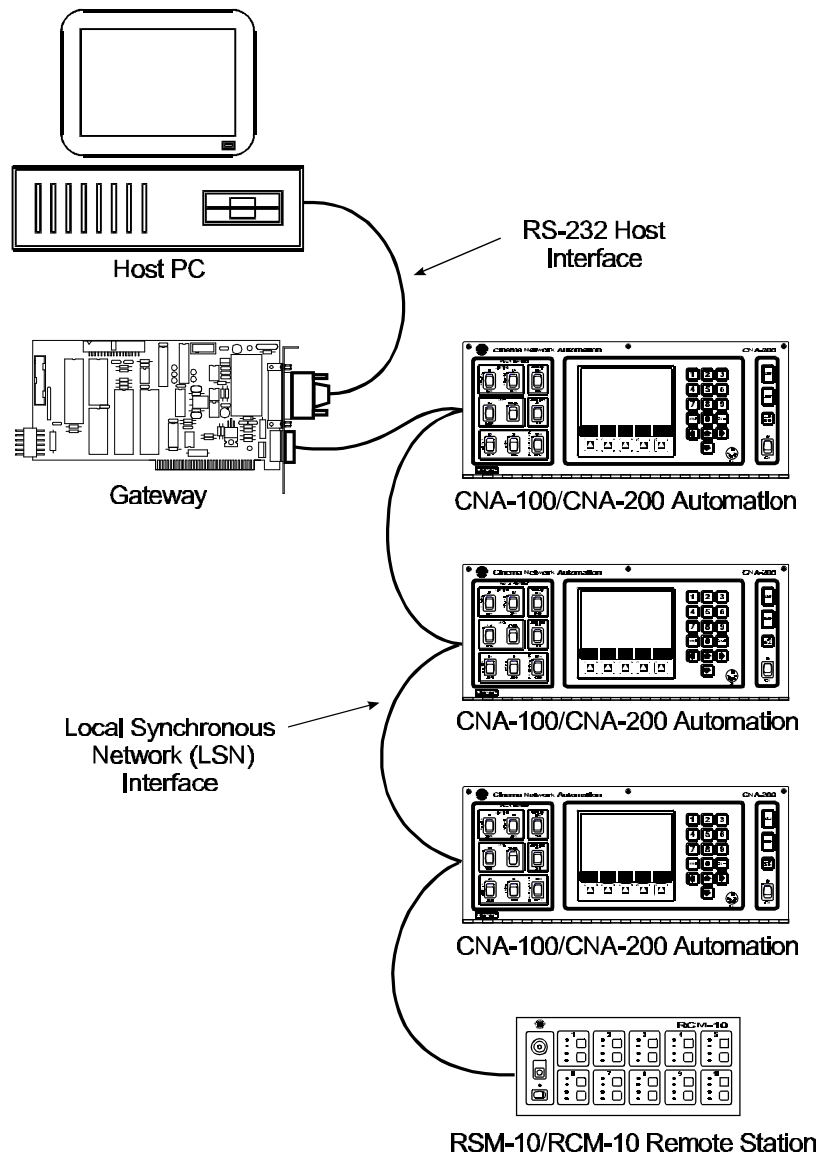
This manual explains how to use the Strong Host program for the CNA-100 and CNA-200 Automation systems. The Host program is designed to run on a PC-XT or AT Personal Computer under MS-DOS version 3.20 or later. The program runs in conjunction with the 39361 Network Gateway card and supports up to 63 remote CNA Automations and Remote Monitors.

This manual describes the start up and operation of the Host program in sufficient detail for the experienced CNA Automation operator to use the program without other reference material. It will however, be necessary for the inexperienced operator to refer to the *CNA-200 Cinema Network Automation Reference Manual* or the *CNA-100 Cinema Network Automation Reference Manual*.

Theory of Operation

The Strong CineNet System is an integrated cinema automation network system that consists of a Host computer, a Gateway card and up to 63 remote devices (CNA-100s, CNA-200s and Remote Monitors) that automate and report the status of all screens in a cinema multiplex. The function of the Host is to monitor and display information which is transferred over the Local Synchronous Network (LSN) and to provide set-up and program data to the remote CNA Automations. The Host also provides a system wide time and date reference for all remotes.

The CineNet System can best be described by the following diagram:



The Host communicates with the Gateway over a point to point 8-bit, 9600 BAUD, RS-232 serial interface. The Gateway assumes the position of primary and controls the transfer of data across the interface. The PC assumes the position of secondary. Data packets are transferred with a two-byte checksum and retry logic to preserve data integrity.

The data link between the Gateway and the remote CNA Automations has been designed to provide an efficient and reliable means of moving data at high speeds over long distances in the cinema booth environment. The physical characteristics of the network interface are as follows:

2-wire isolated RS-485
19.2 K BAUD asynchronous
Multi dropped remotes (63 max)

This data link is controlled with a proprietary protocol that uses retry logic and a checksum to insure the data is transferred without error.

On power up each remote CNA Automation requests the current Time and Date from the Host and sets its clock. In the event the network is down, the CNA-200 clock may be set locally.

The Host program is designed to provide all the network interface functions allowing the Personal Computer to serve as a command post to the entire system. All Host operator functions run in conjunction with the other network activity that is occurring. Programs, Clock Start Times and other Set-up data may be edited and transferred without adversely affecting the operation of the network. As long as the Host program is running, the network operations will continue transparent to the local Host function that is executing. There may however, be some degradation of response times for some functions when large amounts of data are transferred.

Required Hardware

This section describes the hardware that is required to run the Host program. The Host program was designed for a PC-XT or AT Personal Computer. The minimum system requirements are as follows:

256K Random Access Memory
Real-Time Battery Clock
1 - 3 ½ inch disk drive
Hard Disk
1 RS-232 Serial Port
Monochrome Monitor

There is also a cable that is necessary:
P/N 39363 PC to Gateway cable

The PC to Gateway cable is supplied with the Gateway Card along with a 9 pin DB male to 25 pin DB female adapter. Use the adapter if the serial port on your Personal Computer is a 25 pin DB female adapter.

Required Software

The Host System Software is delivered on a 3 ½ inch diskette. Before starting the system, for your own protection, be sure to make a working copy of this distribution diskette! Then store the original distribution diskette in a safe place. Never use the actual distribution diskette for actual work!

The Strong CineNet Host program requires MS-DOS 3.20 (or later version) to operate. The Host distribution diskette contains the following files:

HOST.EXE	Main Program file
HOST.OVR	Program file overlays
INSTALL.BAT	Installation batch file
HOST.SET	Program System Setup file
LOGFILE.DAT	Log Data file*
LOGFILE.IXP	Log Data index file*
C100FILE.DAT	CNA-100 Data file
C100FILE.IXP	CNA-100 Data index file
C200FILE.DAT	CNA-200 Data file
C200FILE.IXP	CNA-200 Data index file

* For future use

PROGRAM FILES

The program files consist of HOST.EXE and HOST.OVR. These files contain all the Host system programs and overlays that are necessary at run time. These files must both reside in the active directory when the program is started.

INSTALLATION BATCH FILE

This batch file (INSTALL.BAT) is only used to transfer the program and data files from the Strong CineNet Host distribution diskette to the hard disk. Note, it automatically creates a new directory 'CNAHOST' on the hard disk.

SETUP FILE

The file HOST.SET contains the data entry parameters that configure the operation of the Host program. This file is automatically created by the Host

program (with default values) if it does not exist.

LOG FILE

The Log File consist of two files LOGFILE.DAT and LOGFILE.IXP. The current implementation does not support the use these files. These files should remain in the active directory as not to restrict their implementation in the future.

CNA-100 FILE

The CNA-100 file consists of two files C100FILE.DAT and C100FILE.IXP. All the programs and setup information is contained in the data file (C100FILE.DAT). C100FILE.IXP is the index into the data file. This index file provides the fast access into the large data file. In the event a problem ever occurs with the index file (C100FILE.IXP), it can be recreated from the data file. The Host program will also create these files (empty) if necessary. For further details, see the Screen Description on page 35 for creating the CNA-100 file.

CNA-200 FILE

The CNA-200 file consists of two files C200FILE.DAT and C200FILE.IXP. All the programs and setup information is contained in the data file (C200FILE.DAT). C200FILE.IXP is the index into the data file. This index file provides the fast access into the large data file. In the event a problem ever occurs with the index file (C200FILE.IXP), it can be recreated from the data file. The Host program will also create these files (empty) if necessary. For further details, see the Screen Description on page 36 for creating the CNA-200 file.

Starting the Host Program

Be sure to follow the program installation procedure in the next section before attempting to run the Host program.

The Host System is delivered on a 3 ½ inch diskette. Before starting the system, for your own protection, be sure to make a working copy of this distribution diskette! Then store the original distribution diskette in a safe place. Never use the actual distribution diskette for actual work!

Once the program and data files are installed on your hard disk, the Host program can be automatically started by the AUTOEXEC.BAT file on power up.

Installing the Host Programs

This section describes the program installation procedure. It is assumed that the PC hard disk has been partitioned for MS-DOS 3.20 or later version and configured as a System disk (bootable).

Install the Strong CineNet Host distribution diskette in drive A or B. Then run the installation batch file 'INSTALL.BAT'. This batch file creates a new directory called 'CNAHOST' on the hard disk and then copies the necessary files from the diskette into this new directory. Assume the 'Source' drive to be drive A, and the 'Target' drive to be hard disk C. To invoke this batch file simply type:

```
>A:INSTALL A: C:
```

If it is desirable for the Host program to automatically start on power up, add the following two lines to your AUTOEXEC.BAT file:

```
CD C:\CNAHOST  
HOST.EXE
```

This completes the installation of the program and data files on the hard disk.

Manual Start Up

When manual startup is performed, be sure that the system Clock/Calendar is correct!

The Host program expects to find required files within it's own (CNAHOST) directory. It is therefor necessary to set the current directory to C:CNAHOST before starting the program. The following illustrates the two manual steps required to start the Host system program:

```
>C:CD C:\CNAHOST  
>C:HOST
```

Terminating the Host Program

The Host program should always be terminated by selecting the '\$ Exit to DOS' option on the Main Menu.

Screen Layout and Description

The Host program functions are organized by menus. This menu structure allows the various Host functions to be grouped in an organized fashion. Changing from menu to menu or menu to work screen is accomplished by single key strokes. The operator is prompted with text messages wherever possible to avoid the need to refer to this reference manual once the system is understood.

There is status information displayed at the top of the screen. The top status line is reserved for error and status messages. These messages may be system related problems, such as missing files, or operator entry errors such as trying to enter too large a value for a parameter. In the event that more than one message is active at a time, the messages are each cycled one second at a time until the condition is corrected. These messages, their causes, and corrections are fully described on page 37.

The top status line also displays the Time and Date, and a number representing the network activity. The network activity is indicated by the number of packets of information crossing the interface. This number is incremented each time a packet is transferred (in either direction).

Main Menu

```
1:51:14 PM 6/ 9/1997 DISABLED
LSN Id= 0
Company Name
Strong CineNet Primary Host
Version 1.002
Main Menu
$ Exit to DOS
1 Network Menu
2 CNA-100 Menu
3 CNA-200 Menu
4 Host Menu
Enter Selection _
```

This is the Main Menu and power up screen for the Strong CineNet Host program.

The actual menu selection is made by simply typing a single digit. Control is then transferred to the corresponding menu or screen. Return to this screen can always be accomplished by typing '0' for 'Home' on higher level menus or by repeated use of the 'Esc' key. The selections on this menu are all higher level menus, and are described as follows:

- Selection '\$' Terminates the Strong CineNet Host program. Control is transferred to the command mode of the MS-DOS operating system.
- Selection '1' Displays the Network Menu.
- Selection '2' Displays the CNA-100 Menu.
- Selection '3' Displays the CNA-200 Menu.
- Selection '4' Displays the Host Menu.

If Selection '\$' is taken inadvertently, simply type in the command 'HOST'.

Network Menu

```
2:15:27 PM 6/ 9/1997 NET 14
Network Menu
0 Home
1 LSN Physical Overview
2 LSN Logical Overview
3 Remote Status Monitor
4 LIN Detail
Enter Selection _
```

This menu operates in the same manner as the Main Menu. The selections available at this level are, however, actual system status screens. All system status information is accessed through this screen. The available choices are:

- Selection '0' Allows the operator to return to the Main Menu screen.
- Selection '1' Displays the Physical Overview screen. This screen shows the Id number of the active remote devices on the Local Synchronous Network (LSN).
- Selection '2' Displays the Logical Overview screen. This screen displays the current status, including device name and software version number of the Gateway and each remote device on the LSN.
- Selection '3' Displays the Remote Status Monitor screen. This screen displays the show status each CNA-100 and CNA-200.
- Selection '4' Displays the LIN Detail status screen. This screen displays the status of each Local I/O Network device for each CNA-100 and CNA-200.

Return to this screen occurs by pressing the 'Esc' key.

```
2:53:13 PM 6/ 9/1997 NET 490
Gateway Version 1.007
LSN Physical Overview
Active Remotes: 0 1 2 10 63
```

This is the LSN Physical Overview screen. This screen is used to show the Gateway's current polling status. The Id's of the devices are displayed indicating the device is active and responding to the network polls. In the event there is a network problem, this information can be used in conjunction with other status screens on the Host and CNA Automations to isolate the problem.

The Gateway maintains a polling status flag for each of the remote devices (CNA-100s, CNA-200s, RSM-10s, etc.). The refresh logic in this screen requests a reports of these flags every few seconds from the Gateway.

3:33:33 PM 6/ 5/1997 NET 1398							
00 GATEWAY V 1.007	01 CNA-200 V 1.005	02 CNA-200 V 1.005	03	04	05	06	07
08	09	10 CNA-100 V 1.040	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63 RCM-10 V 2.010

This is the LSN Logical Overview screen. This screen is used to show the Gateway's current polling status. The device type and software version number are displayed in the corresponding Id box, indicating the device is active and responding to the network polls. If a device stops responding for some reason (loss of power, etc) the device name in the Id box will be highlighted. In the event there is a network problem, this information can be used in conjunction with other status screens on the Host and CNA Automations to isolate the problem.

The Gateway maintains a polling status flag for each of the remote devices (CNA-100s, CNA-200s, RSM-10s, etc.). The refresh logic in this screen requests a reports of these flags every few seconds from the Gateway.

```

3:33:45 PM 6/ 5/1997 NET 1402
Remote Status Monitor
ID Start Show Prog Cue Sync Active Faults
  Mode Status Loop
1 Manual Ready 9 0 3
2 Timed Ready 1 0L 0
10 Manual Stopped 1 1L

```

PgUp, PgDn=Prev/Next Page
Esc=Menu

This is the Remote Status Monitor screen. The operator can easily view the current show status of all the CNA Automations from this screen.

This screen operates in the following manner. On a periodic basis, a request is made to the Gateway to report the current polling status. When polling status is received, each of the active CNA Automations are sent a request for data. As the Host receives the data, it is displayed on a separate line for each Automation. The number in the first column corresponds to the device Id number (DIP switch setting) of the CNA Automation. The display fields are described as follows:

Start Mode indicates the automation is set for either a Timed, Clock or Manual start. Timed or Clock start applies to the CNA-200 only. The CNA-100 will always display Manual start.

Show Status indicates the current status of the show. The messages displayed in this field are: Ready, Fault, Running, Interm and Stopped. Ready indicates the Automation is in the 'Ready to Run' state. Fault indicates the show was interrupted and has been stopped by a fault. Running indicates the show is running normally. Interm indicates the show is in a programmed intermission. And Stopped indicates the show was stopped with a local or remote stop, or by a fault that has been cleared and is 'Ready to Resume'.

Prog indicates the Program number the automation is running or ready to run.

Cue indicates the cue number the automation is waiting to see. An 'L' after the cue number indicates the automation is interlocked.

Sync Loop indicates what Sync Loop the automation is on.

Active Faults indicates the current fault status of the automation. The messages

that can be displayed in this field are:

Film Presence or Tension Fault
Film Motion Fault
Supervisory Memory Fault
Start Time Memory Fault
Program xx-xx Memory Fault
Learn Time Memory Fault
Xenon Lamp Failure Fault
Local I/O Network Fault
Interlock Fault ID=xx
Sync Communication Fault ID=xx
Sync ID=xx Not Ready to Run
Sync ID=xx Not Ready to Resume
Sync: Need Master to Resume
Remote Stop Fault
Ready to Resume
Low Battery Fault
Maintenance Schedule A Fault
Maintenance Schedule B Fault
Maintenance Schedule C Fault
Maintenance Schedule D Fault
Missed Cue
Check Cue Learn Times

These fault messages are fully explained in the *CNA-200 Cinema Network Automation Reference Manual*.

3:34:09 PM 6/ 5/1997 NET 1418

LIN Detail

Network ID: 2

ID	Status	Device	Ver	Chk	Stat	Sys	Attr	Pup	Err	ErrT	Tmr	Fault
1	Active	Console	1	221	87	80	1E	1	0	0	0	
3	Active	Booth	1	221	87	80	3E	1	0	0	0	

This is the LIN (Local I/O Network) Detail screen. The operator can easily view the status of the devices connected to the LIN for each CNA-100 or CNA-200 Automation (i.e. Booth and Console termination panels). Upon entering this screen the operator is requested to enter the Id number of the automation. The Id of the automation may be determined from the 'LSN Logical Overview' screen. When the number is known, enter the number in the 'Network ID' field. After entering the Id, a request is made to the Gateway to report the current polling status. When polling status is received, the CNA Automation is sent a request for data. As the Host receives the data, it is displayed on a separate line for each I/O Device. The number in the first column corresponds to the Id number of the I/O Device. The display fields are described as follows:

Id	Indicates the Id number of the device.
Status	This field indicates if the device is 'Active'. If it is inactive the field is blank.
Device	Indicates the name of the device. (i.e. Booth, Console, etc.)
Ver	This is the software 'version' number.
Chk	This field indicates the 'checksum' number of the device. The checksum is the arithmetic sum of the contents of the software, which is calculated upon each power up.
Stat	These are the Polling Status bits expressed as a hexadecimal number.

\$80	ACTIVE	(1=RESPONDED, 0=NOT)
\$40	WRONG DEVICE TYPE	(1=PROBLEM, 0=OK)
\$20	COMMUNICATIONS LINK ERROR	(1=PROBLEM, 0=OK)
\$10	NOT RESPONDING REGULARLY ENOUGH	(1=PROBLEM, 0=OK)
\$08	NOT DEFINED	(0=ALWAYS)
\$04	EXCHANGING I/O IN PROGRESS	(1=EXCHANGING I/O, 0=NOT)
\$02	REMOTE PARAMETERS SET	(1=DONE, NOT=0)
\$01	ID & DEVICE TYPE RECEIVED	(1=DONE, NOT=0)

The bit definitions indicate that if the remote device is communicating properly the number should read: 10000111 or 87h. If the remote device is 'Not Responding Well' the number 97h is displayed and so forth.

Sys These are the Device System Status bits expressed as a hexadecimal number.

\$80	PARAMETERS	(1=OK, 0=PROBLEM)
\$40	COMMUNICATION TIMEOUT OCCURRED	(1=TIMEOUT, 0=NOT)

The remote device returns the \$80 bit to the CNA Automation indicating the setup parameters were received. Normally the number in this field should be 80h. If a communications timeout occurred, the \$40 bit is set and the number will read C0h.

Attr These are the Device Attribute bits expressed as a hexadecimal number. Each type of device will have a unique number (i.e. Booth termination board = 3E, Console termination board = 1E, etc).

Pup This number represents the number of times the device was powered up or reset.

Err This field counts the number times the CNA Automation has polled the remote device with no response.

ErrT This field tracks the number of times the CNA Automation has polled the device with no response.

Tmr This is the time (in tenths of a second) since last good message was received from the remote device.

Fault This field displays a fault message to indicate the type of problem that exists. The messages are 'DevErr', 'Not Responding Well', and 'Not Responding'. 'DevErr' indicates that the CNA Automation does not recognize the remote device. This could be caused by a software version incompatibility. 'Not Responding Well' indicates that the remote device is not responding regularly enough. This could be due to a defective remote device or the wiring to it. 'Not Responding' indicates a communication timeout condition, meaning that the remote device has not responded in over five seconds.

In the event there is a network problem, this information can be used to isolate the problem.

CNA-100 Menu

```
1:38:52 PM 6/16/1997 NET 4704
CNA-100 Menu
0 Home
1 Set-Up Programs
2 Set-Up Supervisory
3 Copy Configuration
4 Copy Individual Programs
Enter Selection
```

This is the CNA-100 Menu for the Strong CineNet Host program.

This menu operates in the same manner as the Main Menu. The selections available at this level are, however, actual work screens. All Set-up and transferring of Set-up data is accessed through this screen. The available choices are:

- Selection '0' Allows the operator to return to the Main Menu screen.
- Selection '1' Displays the Set-up CNA-100 Programs screen. This screen allows the user to set-up programs and to create, edit or delete records.
- Selection '2' Displays the Set-up CNA-100 Supervisory screen. This screen allows the user to configure the system parameters such as time delays and relay contact configuration.
- Selection '3' Displays the Copy Configuration screen. This screen allows the user to transfer all programs and/or supervisory data from a Host record *to* a CNA-100 or *from* a CNA-100 to a Host record.
- Selection '4' Displays the Copy Individual Programs screen. This screen allows the user to transfer individual programs from a Host record *to* a remote CNA-100 or *from* a CNA-100 to a Host record.

Return to this screen occurs by pressing the 'Esc' key.

```

2:19:20 PM 6/16/1997 NET 4736
Set-up CNA-100 Programs
Edit or Delete (E/D)? E
Record Name: HOUSE 1
Program Number: 1
1 CURRENT RECORD
5 RECORDS USED
5 TOTAL RECORDS

```

Step	Sound	Lens	Lights	Show End	Inter	Curtain Call	Out1	Out2	Out3	Out4
0	Non-Sync	Flat	Up	___	___	___	___	___	___	___
1	Non-Sync	Flat	Up	___	___	___	___	___	___	___
2	Non-Sync	Flat	Up	___	___	___	___	___	___	___
3	Non-Sync	Flat	Up	___	___	___	___	___	___	___
4	Non-Sync	Flat	Up	___	___	___	___	___	___	___
5	Non-Sync	Flat	Up	___	___	___	___	___	___	___
6	Non-Sync	Flat	Up	___	___	___	___	___	___	___
7	Non-Sync	Flat	Up	___	___	___	___	___	___	___
8	Non-Sync	Flat	Up	___	___	___	___	___	___	___
9	Non-Sync	Flat	Up	___	___	___	___	___	___	___

Esc=Menu

This is the Set-up CNA-100 Programs screen. Upon entry to this screen, the cursor is highlighting the field corresponding to the question. The user has the option to either Edit (E) or Delete (D) a record. The default is Edit (E). Press the 'Enter' key or the cursor down key to move forward to the next field. Press the cursor up key to move back to a previous field.

In the 'Record Name:' field, the user can select a record to edit by scrolling through the list of record names with the 'Page Up' and 'Page Down' keys or by typing the name of the record (upper case only). A new record can also be created in this field.

Enter the program to edit in the 'Program Number' field. Legal entries are 1 through 9.

Move through the fields for each 'Step' and select the desired output state with the 'Space Bar'. Each program can contain up to nine cues. The fields and the range of selections for each field are listed below.

Sound	Non-Sync, Mono, SVA, SR, Dig 1, Aux 1.
Lens	Flat, Scope, Special.
Lights	Up, Down, Mid 1, Mid 2
Show End	On, Off (Off is represented by '___')
Inter (Intermission)	On, Off (Off is represented by '___')
Curtain Call	On, Off (Off is represented by '___')
Out 1	On, Off (Off is represented by '___')
Out 2	On, Off (Off is represented by '___')
Out 3	On, Off (Off is represented by '___')
Out 4	On, Off (Off is represented by '___')

To save the changes, press the 'Esc' key. The user is prompted with the message

'Save Changes? (Y/N)?' Press 'Y' and the user is prompted with the message 'Save To'. Press 'Enter' to save the current record or type in a *new* record name. The record name may up to twenty (20) characters long and must be in upper case.

In the upper right corner of the display, a status of CNA-100 records are displayed. This is only status information and does not affect the operation of the screen.

Press 'Esc' to exit this screen and return to the CNA-100 Menu.

```

2:14:31 PM 6/16/1997 NET 4736
Set-up CNA-100 Supervisory
Record Name: HOUSE 1 1 CURRENT RECORD
5 RECORDS USED
5 TOTAL RECORDS
Sound C/O Delay (sec): 7
Lens C/O Time (sec): 8
ChangeOver Pulse (sec): 0.2
Failsafe Delay (sec): 1

Output Contacts Power-up Fault-to
Lens: Pulsed No-op No-op
Masking: Pulsed No-op No-op
Sound: Pulsed Non-sync Non-sync
H. Lights: Pulsed Up Up
S. Lights: Pulsed Up Up
Curtain: Pulsed None No Op
Slide Proj: Maintained On On
Out 1: Pulsed No Op No Op
Out 2: Pulsed No Op No Op
Out 3: Maintained No Op No Op
Out 4: Maintained No Op No Op

Esc=Menu

```

This is the Set-up CNA-100 Supervisory screen. On entry to this screen the cursor is highlighting the 'Record Name' field. Select the record to edit using the 'Page Up' or 'Page Down' keys. Press the 'Enter' key or the cursor down key to move forward to the next field. Press the cursor up key to move back to a previous field.

Edit field data with the number keys or select messages with the 'Space Bar'. Minimum and maximum values for each numeric field are displayed in the upper right corner of the screen. The fields and the range of selections for each field are listed below.

Sound C/O Delay (sec): 0 - 59
Lens C/O Time (sec): 0 - 9
Changeover Pulse (sec): 0.0 - 1.0
Failsafe Delay (sec): 0 - 10

Outputs

Lens: Contacts: Pulsed/Maintained
Masking: Contacts: Pulsed/Maintained
Sound: Contacts: Pulsed/Maintained
House Lights: Contacts: Pulsed/Maintained,
Power-up: Up/Down/Mid 1/Mid 2/No Op
Stage Lights: Contacts: Pulsed/Maintained,
Power-up: Up/Down/Mid 1/Mid 2/No Op
Curtain: Contacts: Pulsed/Maintained,
Power-up: Open/Close/None/No Op,
Fault-to: Open/Close/None/No Op
Slide Projector: Power-up: On/Off/No Op,
Fault-to: On/Off/No Op

- Out 1:** Contacts: Pulsed/Maintained,
Power-up: On/Off/No Op,
Fault-to: On/Off/No Op
- Out 2:** Contacts: Pulsed/Maintained,
Power-up: On/Off/No Op,
Fault-to: On/Off/No Op
- Out 3:** Contacts: Pulsed/Maintained,
Power-up: On/Off/No Op,
Fault-to: On/Off/No Op
- Out 4:** Contacts: Pulsed/Maintained,
Power-up: On/Off/No Op,
Fault-to: On/Off/No Op

To save the changes, press the 'Esc' key. The user is prompted with the message 'Save Changes? (Y/N)?' Press 'Y' and the user is prompted with the message 'Save To'. Press 'Enter' to save the current record or type in a *new* record name. The record name may up to twenty (20) characters long and must be in upper case.

In the upper right corner of the display, a status of CNA-100 records are displayed. This is only status information and does not affect the operation of the screen.

Press 'Esc' to exit this screen and return to the CNA-100 Menu.

```
8:54:20 AM 6/17/1997 NET 8
Copy CNA-100 Configuration          7 CURRENT RECORD
                                     7 RECORDS USED
                                     7 TOTAL RECORDS
Copy:  HOST ---> Remote CNA-100
CNA-100 ID: 1
Record Name:          PROJ100

Copy Programs (1-9)? No
Copy Supervisory?   No
```

This is the Copy CNA-100 Configuration Screen. This screen allows the user to transfer all programs and/or supervisory data from a Host record *to* a CNA-100 or *from* a CNA-100 to a Host record. On entry to this screen the cursor will highlight the 'Copy:' field. Select the "direction" of the copy by pressing the 'Space Bar'. Continue by selecting the Id number of the 'target' or 'source' CNA-100 and the Host record. Scroll through the list of records by using the 'Page Up' and 'Page Down' keys.

The user may choose to copy Programs, Supervisory data, or both. Use the 'Space Bar' to select 'Yes' or 'No' in each field.

The message 'Are You Sure you want "Send" data to ID=1 (Y/N)?' or 'Are You Sure you want to "Get" data from ID=1 (Y/N)?' is displayed prior to the copy operation. Selecting 'N' aborts the copy and 'Y' starts the copy process.

Press 'Esc' to exit this screen and return to the CNA-100 Menu.

```
9:42:27 AM 6/17/1997 NET 172
Copy Individual CNA-100 Programs 7 CURRENT RECORD
7 RECORDS USED
7 TOTAL RECORDS
Copy: HOST ---> Remote CNA-100
CNA-100 ID: 10
Record Name: PROJ100
Program Number: 1
```

This is the Copy Individual CNA-100 Programs Screen. This screen allows the user to transfer individual programs from a Host record *to* a remote CNA-100 or *from* a CNA-100 to a Host record. On entry to this screen the cursor will highlight the 'Copy:' field. Select the "direction" of the copy by pressing the 'Space Bar'. Continue by selecting the Id number of the 'target' or 'source' CNA-100 and the Host record. Scroll through the list of records by using the 'Page Up' and 'Page Down' keys.

The user may choose which Program to copy. Enter data with the number keys.

The message 'Are You Sure you want "Send" data to ID=1 (Y/N)?' or 'Are You Sure you want to "Get" data from ID=1 (Y/N)?' is displayed prior to the copy operation. Selecting 'N' aborts the copy and 'Y' starts the copy process.

Press 'Esc' to exit this screen and return to the CNA-100 Menu.

CNA-200 Menu

```
9:52:22 AM 6/17/1997 NET 196
CNA-200 Menu
0 Home
1 Set-Up Programs
2 Set-Up Clock Start Times
3 Set-Up Cue Learn Times
4 Set-Up Supervisory
5 Copy Configuration
6 Copy Individual Programs
Enter Selection
```

This is the CNA-200 Menu for the Strong CineNet Host program. This menu operates in the same manner as the Main Menu. The selections available at this level are, however, actual work screens. All Set-up and transferring of Set-up data is accessed through this screen. The available choices are:

- Selection '0' Allows the operator to return to the Main Menu screen.
- Selection '1' Displays the Set-up Programs screen. This screen allows the user to set-up programs and to create, edit or delete records.
- Selection '2' Displays the Set-up Clock Start Time screen. This screen allows the user to create, edit or view up to ten clock start times for each day of the week.
- Selection '3' Displays the Set-up Cue Learn Times screen. This screen allows the user to create, edit or view up to twenty cue learn times for each program.
- Selection '4' Displays the Set-up Supervisory screen. This screen allows the user to configure the system parameters such as time delays and relay contact configuration.
- Selection '5' Displays the Copy Configuration screen. This screen allows the user to transfer Programs, Supervisory data, Learn Times and Clock Start Times from a Host record *to* a CNA-200 or *from* a CNA-200 to a Host record.
- Selection '6' Displays the Copy Individual Programs screen. This screen allows the user to transfer individual programs from a Host record *to* a remote CNA-200 or *from* a CNA-200 to a Host record.

Return to this screen occurs by pressing the 'Esc' key.

```

9:54:36 AM 6/17/1997 NET 196
Set-up CNA-200 Programs MIN= 0 MAX=27
Edit or Delete (E/D)? E Record Name: HOUSE 4 2 CURRENT RECORD
Program Number: 1 7 RECORDS USED
15 7 TOTAL RECORDS

1 Format 1 Mono Flat
2 Slide Projector Off 0:05
3 House Lights Mid 1 0:00
4
5 --- Wait Cue 1 ---
6
7 House Lights Down 0:00
8
9 --- Wait Cue 2 ---
10
11 House Lights Mid 1 0:00
12 Shut Down Delay 0:15
13
14 --- Wait Cue 3 ---
15

Select Instruction
-0
House Lights Up 1
House Lights Down 2
House Lights Mid 1 3
House Lights Mid 2 4
House Lights None 5
Stage Lights Up 6
Stage Lights Down 7
Stage Lights None 8
Curtain Open 9
Curtain Close 10
Curtain None 11
Curtain Call 12
Curtain Close Early 13
Slide Projector On 14

↑,↓ =Prev/Next Line Ctrl-Ins=Insert Instruction Tab=Move Right
PgUp,PgDn=Prev/Next Page Ctrl-Del=Delete Instruction Shift-Tab=Move Left
Esc=Save Changes

```

This is the Set-up CNA-200 Programs screen. Upon entry to this screen, the cursor is highlighting the field corresponding to the question. The user has the option to either Edit (E) or Delete (D) a record. The default is Edit (E). Press the 'Enter' key or the cursor down key to move forward to the next field. Press the cursor up key to move back to a previous field.

In the 'Record Name:' field, the user can select a record to edit by scrolling through the list of record names with the 'Page Up' and 'Page Down' keys or by typing the name of the record (upper case only). A new record can also be created in this field.

Enter the program to edit in the 'Program Number' field. Legal entries are 1 through 9.

Special function keys and their uses are displayed at the bottom of the screen. Use these keys and key combinations to create, edit and view programs.

To save the changes, press the 'Esc' key. The user is prompted with the message 'Save Changes? (Y/N)?' Press 'Y' and the user is prompted with the message 'Save To'. Press 'Enter' to save the current record or type in a *new* record name. The record name may up to twenty (20) characters long and must be in upper case.

In the upper right corner of the display, a status of CNA-200 records are displayed. This is only status information and does not affect the operation of the screen.

Press 'Esc' to exit this screen and return to the CNA-200 Menu.

```

10:18:47 AM 6/17/1997 NET 196
Set-up CNA-200 Clock Start Times
Record Name: HOUSE 4
Day of Week: Sunday
2 CURRENT RECORD
7 RECORDS USED
7 TOTAL RECORDS

1 11:35 AM Program 1 Movie Title
2 5:00 PM Program 0 Movie Title
3 12:00 AM Program 0 Movie Title
4 12:00 AM Program 0 Movie Title
5 12:00 AM Program 0
6 12:00 AM Program 0
7 12:00 AM Program 0
8 12:00 AM Program 0
9 12:00 AM Program 0
10 12:00 AM Program 0

Esc=Save Changes

```

This is the Set-up CNA-200 Clock Start Times screen. Press the 'Enter' key or the cursor down key to move forward to the next field. Press the cursor up key to move back to a previous field.

In the 'Record Name:' field, the user can select a record to edit by scrolling through the list of record names with the 'Page Up' and 'Page Down' keys or by typing the name of the record (upper case only). A new record can also be created in this field. Use the 'Space Bar' to select the Day of the Week.

Enter the show Start Times in chronological order. Select a Program to run with each Start Time and enter a movie title up to 14 characters long. The movie title is optional.

To save the changes, press the 'Esc' key. The user is prompted with the message 'Save Changes? (Y/N)?' Press 'Y' and the user is prompted with the message 'Save To'. Press 'Enter' to save the current record or type in a *new* record name. The record name may up to twenty (20) characters long and must be in upper case.

In the upper right corner of the display, a status of CNA-200 records are displayed. This is only status information and does not affect the operation of the screen.

Press 'Esc' to exit this screen and return to the CNA-200 Menu.

Record Name:		HOUSE 4		11:24:39 AM 6/17/1997 NET 196	
Program Number: 1				Set-up CNA-200 Learn Times	
				2 CURRENT RECORD	
				7 RECORDS USED	
				7 TOTAL RECORDS	
Cue	Learn Time	Cue	Learn Time		
1	0:36	11	0:00		
2	2:45	12	0:00		
3	90:13	13	0:00		
4	93:09	14	0:00		
5	0:00	15	0:00		
6	0:00	16	0:00		
7	0:00	17	0:00		
8	0:00	18	0:00		
9	0:00	19	0:00		
10	0:00	20	0:00		

Esc=Save Changes

This is the Set-up CNA-200 Learn Times screen. Press the 'Enter' key or the cursor down key to move forward to the next field. Press the cursor up key to move back to a previous field.

In the 'Record Name:' field, the user can select a record to edit by scrolling through the list of record names with the 'Page Up' and 'Page Down' keys or by typing the name of the record (upper case only). A new record can also be created in this field.

Select a Program number to edit. Each program can store up to twenty cue times. These times can be viewed and edited. Edit the learn times with the number keys.

To save the changes, press the 'Esc' key. The user is prompted with the message 'Save Changes? (Y/N)?' Press 'Y' and the user is prompted with the message 'Save To'. Press 'Enter' to save the current record or type in a *new* record name. The record name may up to twenty (20) characters long and must be in upper case.

In the upper right corner of the display, a status of CNA-200 records are displayed. This is only status information and does not affect the operation of the screen.

Press 'Esc' to exit this screen and return to the CNA-200 Menu.

Set-up CNA-200 Supervisory		11:39:44 AM	6/17/1997	NET 196
Record Name:	HOUSE 4	MIN= 0	MAX=59	2 CURRENT RECORD
				7 RECORDS USED
				7 TOTAL RECORDS
Sound C/O Delay (sec):	-5			
Lens C/O Time (sec):	3			
ChangeOver Pulse (sec):	1.0			
Failsafe Delay (sec):	1			
Cue Factor Default:	0.002			
Password #1:	11			
Cue Learn:	Manual	Output	Contacts	Power-up
Timed Start:	Enabled	Lens:	Maintained	No-op
Clock Start:	Enabled	Masking:	Maintained	No-op
Check Cue Fault:	Disabled	Sound:	Maintained	Non-sync
Missed Cue Fault:	Disabled	H. Lights:	Pulsed	Up
Fault Defeat:	Disabled	S. Lights:	Pulsed	Up
Schedule A:	0	Curtain:	Maintained	None
Schedule B:	0	Slide Proj:	Maintained	On
Schedule C:	0	Out 1:	Maintained	No Op
Schedule D:	0	Out 2:	Maintained	No Op
Time Format:	24Hr	Out 3:	Maintained	No Op
		Out 4:	Maintained	No Op

Esc=Save Changes

This is the Set-up CNA-200 Supervisory screen. On entry to this screen the cursor is highlighting the 'Record Name' field. Select the record to edit using the 'Page Up' or 'Page Down' keys. Press the 'Enter' key or the cursor down key to move forward to the next field. Press the cursor up key to move back to a previous field.

Edit field data with the number keys or select messages with the 'Space Bar'. Minimum and maximum values for each numeric field are displayed in the upper right corner of the screen. The fields and the range of selections for each field are listed below.

Sound C/O Delay (sec):	0 - 59
Lens C/O Time (sec):	0 - 9
Changeover Pulse (sec):	0.0 - 1.0
Failsafe Delay (sec):	0 - 10
Cue Factor Default:	0.001 - 0.999
Password #1:	00 - 99
Cue Learn:	Manual/Auto
Timed Start:	Enabled/Disabled
Clock Start:	Enabled/Disabled
Check Cue Fault:	Enabled/Disabled
Missed Cue Fault:	Enabled/Disabled
Fault Defeat:	Enabled/Disabled
Schedule A:	0 - 65,535 (hrs)
Schedule B:	0 - 65,535 (hrs)
Schedule C:	0 - 65,535 (hrs)
Schedule D:	0 - 65,535 (hrs)
Time Format:	12Hr/24Hr

Outputs

Lens:	Contacts: Pulsed/Maintained
Masking:	Contacts: Pulsed/Maintained
Sound:	Contacts: Pulsed/Maintained
House Lights:	Contacts: Pulsed/Maintained, Power-up: Up/Down/Mid 1/Mid 2/No Op
Stage Lights:	Contacts: Pulsed/Maintained, Power-up: Up/Down/Mid 1/Mid 2/No Op
Curtain:	Contacts: Pulsed/Maintained, Power-up: Open/Close/None/No Op, Fault-to: Open/Close/None/No Op
Slide Projector:	Power-up: On/Off/No Op, Fault-to: On/Off/No Op
Out 1:	Contacts: Pulsed/Maintained, Power-up: On/Off/No Op, Fault-to: On/Off/No Op
Out 2:	Contacts: Pulsed/Maintained, Power-up: On/Off/No Op, Fault-to: On/Off/No Op
Out 3:	Contacts: Pulsed/Maintained, Power-up: On/Off/No Op, Fault-to: On/Off/No Op
Out 4:	Contacts: Pulsed/Maintained, Power-up: On/Off/No Op, Fault-to: On/Off/No Op

To save the changes, press the 'Esc' key. The user is prompted with the message 'Save Changes? (Y/N)?' Press 'Y' and the user is prompted with the message 'Save To'. Press 'Enter' to save the current record or type in a *new* record name. The record name may up to twenty (20) characters long and must be in upper case.

In the upper right corner of the display, a status of CNA-200 records are displayed. This is only status information and does not affect the operation of the screen.

Press 'Esc' to exit this screen and return to the CNA-200 Menu.

```
11:57:25 AM 6/17/1997 NET 236
Copy CNA-200 Configuration      2 CURRENT RECORD
                                7 RECORDS USED
                                7 TOTAL RECORDS
Copy:  HOST ---> Remote CNA-200
CNA-200 ID:      2
Record Name:      HOUSE 4

Copy Programs (1-9)?  No
Copy Learn Times?    Yes
Copy Start Times?    Yes
Copy Supervisory?    Yes
```

This is the Copy CNA-200 Configuration Screen. This screen allows the user to transfer Programs, Supervisory data, Learn Times, and/or Clock Start Times from a Host record *to* a CNA-200 or *from* a CNA-200 to a Host record. On entry to this screen the cursor will highlight the 'Copy:' field. Select the "direction" of the copy by pressing the 'Space Bar'. Continue by selecting the Id number of the 'target' or 'source' CNA-200 and the Host record. Scroll through the list of records by using the 'Page Up' and 'Page Down' keys.

The user may choose to copy Programs, Supervisory, Start Times or Learn Times. Use the 'Space Bar' to select 'Yes' or 'No' in each field.

The message 'Are You Sure you want "Send" data to ID=1 (Y/N)?' or 'Are You Sure you want to "Get" data from ID=1 (Y/N)?' is displayed prior to the copy operation. Selecting 'N' aborts the copy and 'Y' starts the copy process.

Press 'Esc' to exit this screen and return to the CNA-200 Menu.

```
12:06:12 PM 6/17/1997 NET 268
Copy Individual CNA-200 Programs MIN=1 MAX=9
Copy: HOST ---> Remote CNA-200 2 CURRENT RECORD
CNA-200 ID: 2 7 RECORDS USED
Record Name: HOUSE 4 7 TOTAL RECORDS
Program Number: 1
Copy Learn Times? Yes
```

This is the Copy Individual CNA-200 Programs Screen. This screen allows the user to transfer individual Programs with or without Learn Times from a Host record *to* a remote CNA-200 or *from* a CNA-200 to a Host record. On entry to this screen the cursor will highlight the 'Copy:' field. Select the "direction" of the copy by pressing the 'Space Bar'. Continue by selecting the Id number of the 'target' or 'source' CNA-200 and the Host record. Scroll through the list of records by using the 'Page Up' and 'Page Down' keys.

The user may choose which Program to copy. Enter data with the number keys. Select to copy Learn Times with the "Space Bar".

The message 'Are You Sure you want "Send" data to ID=1 (Y/N)?' or 'Are You Sure you want to "Get" data from ID=1 (Y/N)?' is displayed prior to the copy operation. Selecting 'N' aborts the copy and 'Y' starts the copy process.

Press 'Esc' to exit this screen and return to the CNA-200 Menu.

Host Menu

```
1:43:10 PM 6/17/1997 NET 268
Host Menu
0 Home
1 System Configuration
2 Create Log File
3 Create CNA 100 Program File
4 Create CNA 200 Program File
Enter Selection
```

This is the Host Menu Screen. This operates in the same manner as the Main Menu. The selections available at this level are, however, actual work screens. All normal system maintenance is activated through this screen. The available choices are:

- Selection '0' Allows the operator to return to the Main Menu screen.
- Selection '1' Displays the Host System Configuration screen. This screen allows the System configurable data to be edited and viewed.
- Selection '2' Creates the Log File if it does not exist. It also builds the Log Index file from the Log File if necessary.
- Selection '3' Creates the CNA-100 Program File if it does not exist. It also builds the CNA-100 Index File from the CNA-100 Program File if necessary.
- Selection '4' Creates the CNA-200 Program File if it does not exist. It also builds the CNA-200 Index File from the CNA-200 Program File if necessary.

Return to this screen occurs at the completion of the local function or by pressing the 'Esc' key.

```
2:22:15 PM 6/17/1997 NET 268
Host Configuration

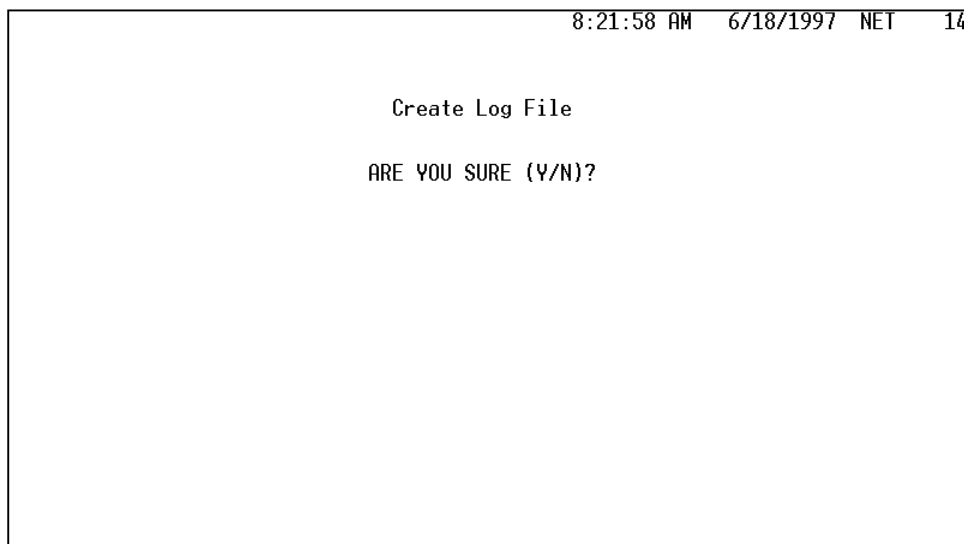
Company Name: ABC Theatres
Net Serial Port: Com1
Net Serial Port IRQ: 4
Gateway Card LSN Id: 0
Time Format: 12 Hr
```

This screen allows the operator to configure the serial port and IRQ. The valid selections for the serial port are Com1, Com2, Com3, Com4 or OFF. The valid selections for the IRQ are 0 through 7.

This screen also allows the operator to configure the Host as a “Primary Host” or “Secondary Host”. To configure the Host as a Primary, set the Gateway Card LSN Id to ‘0’. To configure as a Secondary, set the LSN Id to ‘1 through 63’. A Secondary Host will typically be used by the technician’s laptop computer for initial setting up and troubleshooting.

To select either 12 hour mode or 24 hour mode, press the ‘Space Bar’ when the ‘Time Format’ field is highlighted.

Press the ‘Esc’ key at any time to abort the screen. Press the ‘Enter’ key at the ‘ENTER/CHANGE?’ prompt to save changes and return to the Host Menu.



This screen allows the operator to create the Log Files 'LOGFILE.DAT' and 'LOGFILE.IXP' when they do not exist. This screen will also automatically create the index file 'LOGFILE.IXP' based on the data in the 'LOGFILE.DAT'.

This screen will not normally be used, in fact when both files are present on the disk, this screen will not do anything. It is provided for system initialization and as a utility for rebuilding the Log Index File should it ever become necessary.

In the event a problem ever develops with the index file (LOGFILE.IXP), it may be deleted. This screen will automatically recreate it from the data file.

```
11:39:08 AM 6/18/1997 NET 14  
  
Create CNA-100 File  
  
ARE YOU SURE (Y/N)?
```

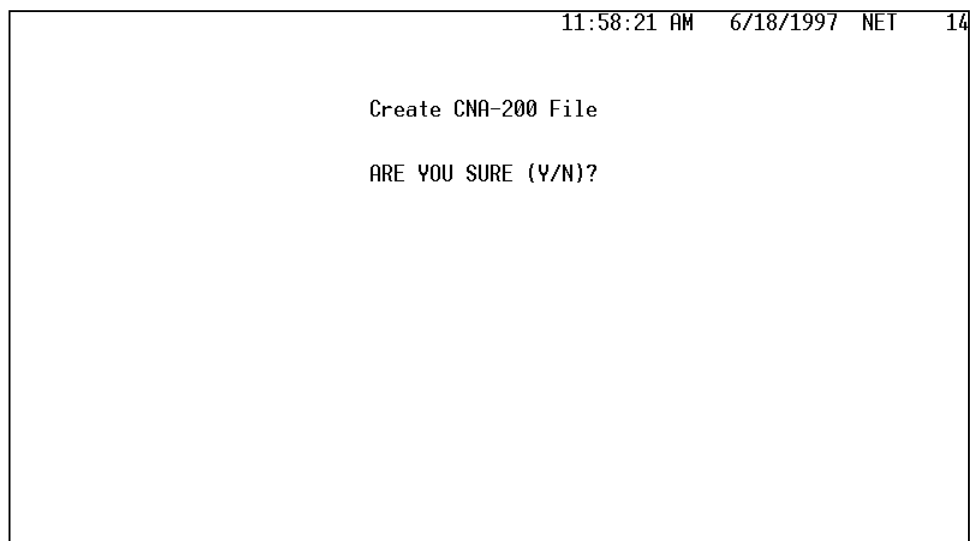
This screen allows the operator to create the Log Files 'C100FILE.DAT' and 'C100FILE.IXP' when they do not exist. This screen will also automatically create the index file 'C100FILE.IXP' based on the data in the 'C100FILE.DAT'.

This screen will not normally be used, in fact when both files are present on the disk, this screen will not do anything. It is provided for system initialization and as a utility for rebuilding the CNA-100 Index File should it ever become necessary.

It is helpful to understand the purpose of these two files. The file 'C100FILE.DAT' consists of records for each CNA-100 in the file. Each record contains the Programs and Supervisory set-up parameters for that CNA-100. The file 'C100FILE.IXP' simply provides an index to the data contained in the 'C100FILE.DAT'. The structure of the data file allows the index file to be recreated based on the information in the data file.

In the event a problem ever develops with the index file (C100FILE.IXP), it may be deleted. This screen will automatically recreate it from the data file.

In the event a problem ever develops with the data file (C100FILE.DAT), it must be restored from a recent backup. Therefore perform backups frequently!



This screen allows the operator to create the Log Files 'C200FILE.DAT' and 'C200FILE.IXP' when they do not exist. This screen will also automatically create the index file 'C200FILE.IXP' based on the data in the 'C200FILE.DAT'.

This screen will not normally be used, in fact when both files are present on the disk, this screen will not do anything. It is provided for system initialization and as a utility for rebuilding the CNA-200 Index File should it ever become necessary.

It is helpful to understand the purpose of these two files. The file 'C200FILE.DAT' consists of records for each CNA-200 in the file. Each record contains the Programs and Supervisory set-up parameters for that CNA-200. The file 'C200FILE.IXP' simply provides an index to the data contained in the 'C200FILE.DAT'. The structure of the data file allows the index file to be recreated based on the information in the data file.

In the event a problem ever develops with the index file (C200FILE.IXP), it may be deleted. This screen will automatically recreate it from the data file.

In the event a problem ever develops with the data file (C200FILE.DAT), it must be restored from a recent backup. Therefore perform backups frequently!

Status and Error Messages

The top line of the Host monitor screen is reserved for displaying status and error messages. These messages, their causes and corrections are described here.

CAN'T OPEN LOG FILE - The Log File cannot be opened. Check to see that both the index (LOGFILE.IXP) and data file (LOGFILE.DAT) are present in the CNAHOST directory. See page 34 for details for creating the Log File.

CAN'T OPEN SETUP FILE - The file HOST.SET cannot be opened. This file simply contains the System Setup information. Delete the file and re-enter the data on the Host System Configuration screen as described on page 33.

CAN'T OPEN CNA-100 FILE - The CNA-100 file cannot be opened. Check to see that both the index (C100FILE.IXP) and data file (C100FILE.DAT) are present in the CNAHOST directory. See page 35 for details for creating the CNA-100 File or restore BOTH files from a recent backup.

CAN'T OPEN CNA-200 FILE - The CNA-200 file cannot be opened. Check to see that both the index (C200FILE.IXP) and data file (C200FILE.DAT) are present in the CNAHOST directory. See page 36 for details for creating the CNA-200 File or restore BOTH files from a recent backup.

KEYBOARD ENTRY ERROR - The operator has tried to enter too high or too low a value for the current data field. Clear the field and enter a valid number.

DRIVE N FULL - There is no more room on this drive. The file(s) residing on this drive require more disk space than is available. In most cases the problem is due to too many records in the CNA-100 or CNA-200 Data File. Free up space on this drive.

LOGFILE.IXP ERROR - There is an error reading the Log Data file. This could be a mismatch due to a corrupted index file. If the problem persists, delete the 'LOGFILE.IXP' file and re-create it as described on page 34.

C100FILE.IXP ERROR - There is an error reading the CNA-100 Data file. This could be a mismatch due to a corrupted index file. If the problem persists, delete the 'C100FILE.IXP' file and re-create it as described on page 35.

C200FILE.IXP ERROR - There is an error reading the CNA-200 Data file. This could be a mismatch due to a corrupted index file. If the problem persists, delete the 'C200FILE.IXP' file and re-create it as described on page 36.

PROGRAM FULL / DELETE STEPS - The CNA-200 Program is full. This is most likely due to an extraneous instruction on the last line of the program. Page down through the program and delete the unwanted instruction.