FCC Multi-Line Network

Network Configuration

P/N 387008 Revision 0.3

FCC Multi-Line Network Configuration Manual

P/N 387008

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FCC Multi-Line Network Configuration Manual P/N 387008 Revision Status		
Revision	Date	Reason for Change
0.0	11/8/91	Initial release.
0.1	02/21/92	Product Enhancements
0.2	04/28/92	Revised worksheets, Upload wiring. Added templates
0.3	02/02/93	Revised FCC, FCCS, & FCCA programming sections.

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FCC MULTI-LINE NETWORK PROGRAMMING

OVERVIEW

1. Programming an FCC Multi-Line network is similar to generating a program for an IRC-3 single network. Actions, sequences time controls, etc. are used to define system responses. With a multi-line network, four additional address digits are required. Two digits are used in the prefix of the device addresses to identify the line number or channel to which the device is physically connected. Two additional digits are used in the address suffix to identify the device type.

2. At least four system files need to be constructed to define the FCC network configuration for the FCC network compiler program. A minimum of two files are required to define DCPU operation, and a minimum of two files are required to define PCPU operation.

   The network configuration information in these system files is entered using any word processing program capable of generating pure ASCII text files, without any embedded word processor codes. The text editing, duplication, file management and hard copy output abilities of your word processor are now available for program generation, eliminating the need for a special data entry program.

   The four ASCII text files are fed into the FCC network compiler which checks these data files for incomplete, missing, or undefined statements. Any errors are listed on a line by line basis for easy identification and correction. The final compiled FCC network data file is then downloaded into the Polling Central Processor Unit (PCPU). Display files are similarly compiled and downloaded into their respective DCPUs. DCPU and PCPU downloading is also accomplished using the FCC compiler program.

3. Use of the FCCS switch panel requires the use of "remote actions" and status lists which provide an intermediate step between the FCCS configuration program and traditional network actions. Additional details may be found in the FCCS technical literature.

4. The IRC-3 data entry program is required to download data to the CM2Ns located on each network data channel. This requires that the PCPU zone file information be manually entered into the IRC-3 data entry program, using a separate filename for each network channel.

NOTATION CONVENTIONS

Throughout this document, the following conventions are used to make distinctions between various text elements. It is understood that every line in a source file ends with ENTER, which will be omitted from the documentation unless required for clarity.

bold	Used for commands, options, switches and literal portions of syntax which must appear exactly as shown.
italic	Used for filenames, variables and placeholders that represent information which must be supplied by the user. Italics are also occasionally used for emphasis in text.
`courier`	Example programs, user input, and screen output are set in courier (typewriter) face.
SMALL CAPS	Used for keys, key sequences and acronyms.
	A plus (+) indicates a combination of keys i.e. CTRL+E means hold down the CTRL key while pressing the E key.
	A comma (,) indicates a combination of keys i.e. ALT, F2 means press and release the ALT key, then press and release the F2 key.
[*panel*]	Single brackets indicate required data entry. Text of this sort should not entered verbatim.
[[*desc*]]	Double brackets indicate items are optional.
{*ac*¦*dc*}	Braces and a vertical bar indicate a choice between two or more items. You must select an item unless double square brackets surround the braces.
repeating elements	A horizontal ellipsis (...) indicates the preceding item or sequence having the same form may appear again.
`Start` . . . `End`	A vertical ellipsis indicates some portion of the text has been purposely omitted.

PCPU

The PCPU is the master controller for an FCC multi-line network. The network parameters are stored in the PCPU. These include the hardware and communications configuration of the PCPU itself which are stored in the PCPU base parameter file(s), and the PCPU zone file(s) which contains the zone response information. The PCPU communicates with the DCPUs over a dedicated network, using RS-485 protocol.

Four types of communication cards are available for use with the PCPU:

1. FCOM-485 Dual port RS-485 Communications Card P/N 130140
2. FCOM-485(D) Dual port RS-485 Communications Card P/N 130194
3. FCOM-20 Dual port 20 mA. Loop Communications Card P/N 130163
4. FCOM-FIB Dual Port Fiber Optics Communications Card P/N 130162

Four communication cards may be plugged into the PCPU, providing 4 class B (Style 4) or class A (Style 7) network data communication circuits. These circuits connect the network to the field panels such as CM2Ns, FCCAs, SAN & RASP annunciators, etc.

DCPU

DCPUs are used to manage the network displays. Stored in the DCPU are the hardware and communications configuration of the DCPU itself, in the form of the DCPU base parameter file(s). The DCPU message file contains all user messages, and their destinations (display patterns). DCPUs communicate with the PCPU over a dedicated "high order" network, using RS-485 protocol.

Three types of communication cards are available for use with the DCPU:

1. FCOM-FIB Dual port Fiber Optics Communications Card P/N 130162
2. FCOM-232 Dual port RS-232 Communications Card P/N 130148
3. FCOM-485 Dual port RS-485 Communications Card P/N 130140 (for FCCDs only)

Four communication cards may be plugged into the DCPU, providing 8 class B (Style 4) display communication circuits. These circuits connect the network to passive and/or interactive devices such as printers and CCA, or CGP annunciation systems.

PCPU & DCPU DATABASE FILES

A minimum of two ASCII text files must be created for the PCPU. The PCPU requires one or more PCPU base parameter files, and one or more PCPU zone files.

A minimum of two ASCII text files must be created for each DCPU. The DCPU requires a one or more DCPU base parameter files, and one or more DCPU message files. Data for these files is initially entered on the DCPU configuration worksheet and the DCPU message worksheets.

With experience, programmers should be able to use a word processor to create, modify, and copy and document files directly, reducing the need for worksheets. Copies of DCPU and PCPU worksheets are at the end of this document.

CREATING PCPU & DCPU DATABASE FILES

1. Set your word processor program to the ASCII text (non-document) mode.

2. Create two (minimum) PCPU files and two (minimum) DCPU files. These files may have any filename and extension EXCEPT: *BINARY.Pxx* and *BINARY.Dxx*, where x = 0 - 9. It is recommended that the filenames and filename extensions relate directly to the project and file type for ease in identification.

   EXAMPLE: *JOBNAME.P00* = PCPU Base parameter file
   JOBNAME.Z00 = PCPU Zone file
   JOBNAME.D00 = DCPU Base parameter file
   JOBNAME.M00 = DCPU Message file

In order to simplify database construction, multiple data files may be used for a single database. This permits project files to be broken down into small manageable pieces.

EXAMPLE: *JOBNAME.Z01* = first floor PCPU zone file
JOBNAME.Z02 = second floor PCPU zone file
JOBNAME.Z05 = fifth floor PCPU zone file

DCPU & PCPU Database Construction Rules:
1. Blank lines must not occur within a data category. 2. Separate data categories with one or more blank lines. 3. Spacing between identifiers and options must be exactly as shown. 4. Entries are not case sensitive. 5. Comments may be added to any data line after the required information. 6. Precede comment lines with a **#** 7. Tabs may be used to indent lines for editorial clarity.

PCPU Base Parameter Database Construction

There are eight data categories to be entered into the PCPU Base Parameter database. They may be entered in any order:

File type identification
Job identification
Communications card information
Base parameter information
Display information
Panel definitions
Node number
Alternate Sensitivity Information

When available, the default value is the first choice listed. The compiler will insert default values for all categories except panel definitions, however it is highly recommended that ALL categories be entered for documentation purposes.

Construction of PCPU Base Parameter file *JOBNAME.P00.*

Text between the two lines of asterisks must be created with the word processor and saved as *JOBNAME.P00.* Enter all data using the conventions listed on page 2.

****

pcpu database file

date started: [*mm*]/[*dd*]/[*yy*]
date last edited: [*mm*]/[*dd*]/[*yy*]
#*Jobname*

node number: [01]

installation site: [{**american**¦**european**}]
walk test: [{**silent**¦**audible**}]
common test beep: [{**enabled**¦**disabled**}]
sancom: [{**enabled**¦**disabled**}]
start action [*nnnn*] {0000 - 9999}
start sequence [*nnnn*] {0000 - 9999}

display CPU [*nn*{01 - 03}]:[{**disabled**¦**enabled**}]

communications card: [*nn*{01 - 04}]
communications class: [{**a**¦**b**}]
card type: [{**rs-485**¦**rs-232**¦**fiber optic**¦**20 ma. loop**}]
baud rate: [{**9600**¦**4800**¦**2400**}]

panel: [*n*{0 - 7}][*nn*{01 - 62}] line # & panel #
poll bit: [{**enable**¦**disable**}]
panel type: [{**irc-1**¦**irc-2**¦**irc-3**¦**san annunciator**¦**san annunciator w/sancom**¦**audio panel**}]

alternate sensitivity start: [*hh:mm*]
alternate sensitivity end: [*hh:mm*]

****

A sample PCPU database appears on the following pages.

Example PCPU Base Parameter File

ASCII TEXT FILE	DESCRIPTION
`pcpu database file`	Defines this as a PCPU database file.
`date started: 06/12/91`	Enter the start date of this project.
`date last edited: 06/12/91`	Enter the date of the last edit on this program
`installation site: american`	Defines system using American style of operation
`start action: 2000`	sets start action at 2000
`start sequence: 1000`	sets start sequence at 1000
`walk test: audible`	sets walk test as audible
`common test beep: enabled`	Energizes audibles for 1 sec. when alarm initiated in test mode
`san communications: enabled`	enables SANCOM function
`node number: 00`	defines this PCPU as node 00
`alternate sensitivity start: 12:22`	starts alternate sensitivity at 12:22 hours
`alternate sensitivity end: 18:00`	ends alternate sensitivity at 18:00 hours
`communications card: 1`	defines card in PCPU position 1 as:
`line class: B`	class B (style 4) communication
`baud rate: 9600`	baud rate is 9600
`card type: rs-485`	FCOM-485 card installed
`# buildings 1-5`	Your comments here.
`communications card: 2`	defines card in PCPU position 2 as:
`line class: b`	class B (style 4) communication
`baud rate: 9600`	baud rate is 9600
`card type: rs-485`	FCOM-485 card installed

```
communications card: 3
     line class: b
     baud rate: 9600
     card type: rs-485

communications card: 4
     line class: b
     baud rate: 9600
     card type: rs-485


display 01: enable
display 02: disable
display 03: disable

panel: 6 05
     panel type: remote annunciator
     poll bit: enabled

panel: 0 02
     panel type: remote annunciator
     poll bit: disabled
     #  turn on in february

panel: 0 03
     panel type: irc-3
     poll bit: disabled

panel: 0 04
     panel type: irc-3
     poll bit: disabled
```

defines card in PCPU position 3 as:
class B (style 4) communication
baud rate is 9600
FCOM-485 card installed

defines card in PCPU position 4 as:
class B (style 4) communication
baud rate is 9600
FCOM-485 card installed

Enables DCPU 01 on the RS-485 backbone network
Disables DCPU 02 on the RS-485 backbone network
Disables DCPU 03 on the RS-485 backbone network

Defines panel address: line 6, panel 05
Defines panel as a remote annunciator
Defines panel as an active device

Defines panel address: line 0, panel 02
Defines panel as a remote annunciator
Defines panel as an inactive device
Your comments here

Defines panel address: line 0, panel 03
Defines panel as an IRC3 device
Defines panel as an inactive device

Defines panel address: line 0, panel 04
Defines panel as an IRC3 device
Defines panel as an inactive device

```
panel: 0 05
     panel type: irc-3
     poll bit: disabled
```

Defines panel address: line 0, panel 05
Defines panel as an IRC3 device
Defines panel as an inactive device

```
panel: 0 06
     panel type: irc-1
     poll bit: disabled
```

Defines panel address: line 0, panel 06
Defines panel as an IRC1 device
Defines panel as an inactive device

```
panel: 0 07
     panel type: san annunciator
     poll bit: disabled
```

Defines panel address: line 0, panel 07
Defines panel as a remote annunciator w/SANCOM module
Defines panel as an inactive device

PCPU Zone Database Construction

There are twelve data categories which may be entered in the PCPU Zone data base *JOBNAME.Z00.* They may be entered in any order.

> File type identification, Actions, Alarm Zones, Logic Functions, Matrices, Remote Actions, Remote Switches, Security Zones, Sequences, Status Zones, Supervisory Zones, and Time Controls.

Data base construction is done with a word processor program using ASCII output. The format for PCPU zone data base variables listed above appears on the following two pages. The first page of the variable format list is organized alphabetically, the second organized numerically. A legend follows these two pages, indicating valid inputs for each variable. Please refer to the notation conventions on page 2 when reading the format lists.

Construction of the PCPU Zone file

Text between the two lines of asterisks must be created with the word processor and saved as *JOBNAME.Z00.* NOTE: You may select any filename and filename extension you desire.

****
zone database file
****

Note that their is only one *required* statement in a PCPU Zone file. Actions, Sequences, etc. are added as necessary. A sample PCPU Zone file follows the PCPU Format information.

PCPU Zone Data Base Format - Alpha

Action - Define	**act** [*action*] [[*description*]]
Activate Action	**03** [*action*] [[*description*]]
Activate Sequence	**15** [*sequence*] [[*description*]]
Cancel Sequence	**16** [*sequence*] [[*description*]]
Disable Action	**12** [*action*] [[*description*]]
Disable Input	**06** [*line*] [*panel*] [*input*] [[*description*]]
Disable Input Message	**10** [*line*] [*panel*] [*input*] [[*description*]]
Disable Sequence	**18** [*sequence*] [[*description*]]
Disable Time Control	**14** [*control*] [[*description*]]
Enable Action	**11** [*action*] [[*description*]]
Enable Input	**07** [*line*] [*panel*] [*input*] [[*description*]]
Enable Input Message	**09** [*line*] [*panel*] [*input*] [[*description*]]
Enable Time Control	**13** [*control*] [[*description*]]
Output Reset	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Output Set	**01** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Patrol #	**05** [*patrol*] [[*description*]]
Restore Action	**04** [*action*] [[*description*]]
Store Patrol Pattern	**06** [*minutes*] [*patrol*] [[*description*]]
Virtual LED Reset	**20** [*priority*] [*device*] [*keypad*] [[*description*]]
Virtual LED Set	**19** [*priority*] [*device*] [*keypad*] [[*description*]]
Alarm Zone - Define	**ala** [*line*] [*panel*] [*zone*] [*type*][1,2] [[*description*]]
Alarm Action	**06** [*action*] [[*description*]]
Alarm Reset	**04** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Alarm Set	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Alarm Virtual LED Reset	**11** [*priority*] [*device*] [*keypad*] [[*description*]]
Alarm Virtual LED Set	**10** [*priority*] [*device*] [*keypad*] [[*description*]]
Alarm Action	**08** [*action*] [[*description*]]
Test Trouble Action	**09** [*action*] [[*description*]]
Trouble Action	**07** [*action*] [[*description*]]
Trouble Reset	**05** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Trouble Set	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Trouble Virtual LED Reset	**13** [*priority*] [*device*] [*keypad*] [[*description*]]
Trouble Virtual LED Set	**12** [*priority*] [*device*] [*keypad*] [[*description*]]
Logic Function - Define	**log** [*logic*] [*action*] [[*description*]]
AND Alarm Input	**01** [*line*] [*panel*] [*zone*] [[*description*]]
AND Security	**04** [*line*] [*panel*] [*zone*] [[*description*]]
AND Supvsry Open Input	**02** [*line*] [*panel*] [*zone*] [[*description*]]
AND Supvsry Short Input	**03** [*line*] [*panel*] [*zone*] [[*description*]]
Remote Action - Define	**ract** [*device*] [*keypad*] [*option*] [[*description*]]
Activate Action	**03** [*action*] [[*description*]]
Activate Sequence	**05** [*sequence*] [[*description*]]
Cancel Sequence	**06** [*sequence*] [[*description*]]
Relay Reset	**02** [*priority*] [*line*] [*panel*] [*relay*] [[*description*]]
Relay Set	**01** [*priority*] [*line*] [*panel*] [*relay*] [[*description*]]
Restore Action	**04** [*action*] [[*description*]]
Virtual LED Reset	**08** [*priority*] [*device*] [*keypad*] [[*description*]]
Virtual LED Set	**07** [*priority*] [*device*] [*keypad*] [[*description*]]
Remote Switch Zn - Def	**rem** [*line*] [*panel*] [*zone*] [*type*] [[*description*]]
Patrol #	**05** [*patrol*] [[*description*]]
Switch Action	**04** [*action*] [[*description*]]
Switch Output Reset	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Switch Output Set	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Switch Test Action	**06** [*action*] [[*description*]]
Virtual LED Reset	**08** [*priority*] [*device*] [*keypad*] [[*description*]]
Virtual LED Set	**07** [*priority*] [*device*] [*keypad*] [[*description*]]
Security Zone - Define	**sec** [*line*] [*panel*] [*zone*] [*type*][3,4] [[*description*]]
Patrol #	**02** [*patrol*] [[*description*]]
Security Action	**05** [*action*] [[*description*]]
Security Open Test Act	**06** [*action*] [[*description*]]
Sec Open Virt LED Rst.	**11** [*priority*] [*device*] [*keypad*] [[*description*]]
Sec Open Virt LED Set	**10** [*priority*] [*device*] [*keypad*] [[*description*]]
Security Reset	**04** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Security Set	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Security Short Test Act	**07** [*action*] [[*description*]]
Sec Short Virt LED Rst.	**09** [*priority*] [*device*] [*keypad*] [[*description*]]
Sec Short Virt LED Set	**08** [*priority*] [*device*] [*keypad*] [[*description*]]
Sequence - Define	**seq** [*sequence*] [[*description*]]
Delay and Action	**01** [*seconds*] [*action*] [[*description*]]

Status Zone - Define	**stat** [*line*] [*panel*] [*zone*] [*type*] [[*description*]]
Open Action	**04** [*action*] [[*description*]]
Open Reset	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Open Set	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Patrol #	**05** [*patrol*] [[*description*]]
Short Action	**07** [*action*] [[*description*]]
Short Reset	**06** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Short Set	**05** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Status Open Test Action	**11** [*action*] [[*description*]]
Stat Open Virt LED Rst.	**16** [*priority*] [*device*] [*keypad*] [[*description*]]
Stat Open Virt LED Set	**15** [*priority*] [*device*] [*keypad*] [[*description*]]
Status Short Test Action	**12** [*action*] [[*description*]]
Stat Short Virt LED Rst.	**14** [*priority*] [*device*] [*keypad*] [[*description*]]
Stat Short Virt LED Set	**13** [*priority*] [*device*] [*keypad*] [[*description*]]
Stat Open Virt LED Rst.	**16** [*priority*] [*device*] [*keypad*] [[*description*]]
Stat Open Virt LED Set	**15** [*priority*] [*device*] [*keypad*] [[*description*]]
Supervisory Zone - Define	**sup** [*line*] [*panel*] [*zone*] [*type*][5,6] [[*description*]]
Patrol #	**08** [*patrol*] [[*description*]]
Supervisory Open Action	**04** [*action*] [[*description*]]
Supervisory Open Reset	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Supervisory Open Set	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Supervy Open Test Act	**09** [*action*] [[*description*]]
Sup Open Virt LED Reset	**14** [*priority*] [*device*] [*keypad*] [[*description*]]
Sup Open Virt LED Set	**13** [*priority*] [*device*] [*keypad*] [[*description*]]
Supervisory Short Action	**07** [*action*] [[*description*]]
Supervisory Short Reset	**06** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Supervisory Short Set	**05** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Suprvy Short Test Act	**10** [*action*] [[*description*]]
Sup Short Virt LED Reset	**12** [*priority*] [*device*] [*keypad*] [[*description*]]
Sup Short Virt LED Set	**11** [*priority*] [*device*] [*keypad*] [[*description*]]
Time Control - Define	**time** [*control*] [*month*] [*day*] [*day of week*] [*hour*] [*minute*] [[*description*]]

[1] Traditional Alarm Zone [type] devices:

01	Manual Pull Station
02	Smoke Detector
03	Manual Pull Station & Smoke Detector
04	Waterflow

[2] Analog Alarm Zone [type] devices:

50	1551 Ionization Smoke Detector
51	2551 Photoelectronic Smoke Detector
52	5551 Heat Detector
53	M500MF Monitor Module (Manual Pull; Smoke Detector; Waterflow; Smoke Detector & Manual Pull)
54	M501MF Monitor Module (Manual Pull; Smoke Detector; Waterflow; Smoke Detector & Manual Pull)

[3] Traditional security OPEN [type] devices

30	Armed Alarm
31	unarmed Trouble

[3] Traditional security CLOSED [type] devices

40	armed alarm
41	unarmed alarm

[4] Analog security OPEN [type] devices

80	M500MF Monitor Mod (armed alarm; unarmed trbl)
81	M501MF Monitor Mod (armed alarm; unarmed trbl)

[4] Analog security CLOSED [type] devices

90	M500MF Monitor Module (armed alarm; unarmed trbl)
91	M501MF Monitor Module (armed alarm; unarmed trbl)

[5] Traditional supervisory OPEN [type] devices

10	Zone Trouble
11	HVAC trouble or alarm

[5] Traditional supervisory SHORT [type] devices

20	ZB8-2, ZB8-5, ZB8-8 Modules Audible zone trouble
21	HVAC trouble or alarm
22	ZB8-2, ZB8-5, ZB8-8, ZB8-5/3, ZA4-2 Modules Sprinkler Supervisory
23	Watchman's Tour
24	ZB8-5/3 Audible Zone trouble
25	ZA4-2 Audible Zone trouble

[6] Analog supervisory OPEN [type] devices

60	M500MF Monitor Mod (zone trbl; HVAC trbl or alarm)
61	M501MF Monitor Mod (zone trbl; HVAC trbl or alarm)

[6] Analog supervisory SHORT [type] devices

70	M500CF Control Module (audible zone trouble)
71	M500MF Monitor Module (HVAC trbl or alarm; sprinkler supervisory; watchman's tour)
72	M501MF Monitor Module (HVAC trbl or alarm; sprinkler supervisory; watchman's tour)
73	M500MF, M501MF Monitor Module Sprinkler Supervisory Zone

PCPU Zone Data Base Format - Numeric

Action - Define	**act** [*action*] [[*description*]]
Output Set	**01** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Output Reset	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Activate Action	**03** [*action*] [[*description*]]
Restore Action	**04** [*action*] [[*description*]]
Patrol #	**05** [*patrol*] [[*description*]]
Store Patrol Pattern	**06** [*minutes*] [*patrol*] [[*description*]]
Enable Input	**07** [*line*] [*panel*] [*input*] [[*description*]]
Disable Input	**08** [*line*] [*panel*] [*input*] [[*description*]]
Enable Input Message	**09** [*line*] [*panel*] [*input*] [[*description*]]
Disable Input Message	**10** [*line*] [*panel*] [*input*] [[*description*]]
Enable Action	**11** [*action*] [[*description*]]
Disable Action	**12** [*action*] [[*description*]]
Enable Time Control	**13** [*control*] [[*description*]]
Disable Time Control	**14** [*control*] [[*description*]]
Activate Sequence	**15** [*sequence*] [[*description*]]
Cancel Sequence	**16** [*sequence*] [[*description*]]
Enable Sequence	**17** [*sequence*] [[*description*]]
Disable Sequence	**18** [*sequence*] [[*description*]]
Virtual LED Set	**19** [*priority*] [*device*] [*keypad*] [[*description*]]
Virtual LED Reset	**20** [*priority*] [*device*] [*keypad*] [[*description*]]

Alarm Zone - Define	**ala** [*line*] [*panel*] [*zone*] [*type*][1,2] [[*description*]]
Alarm Set	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Trouble Set	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Alarm Reset	**04** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Trouble Reset	**05** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Alarm Action	**06** [*action*] [[*description*]]
Trouble Action	**07** [*action*] [[*description*]]
Test Alarm Action	**08** [*action*] [[*description*]]
Test Trouble Action	**09** [*action*] [[*description*]]
Alarm Virtual LED Set	**10** [*priority*] [*device*] [*keypad*] [[*description*]]
Alarm Virtual LED Reset	**11** [*priority*] [*device*] [*keypad*] [[*description*]]
Trouble Virtual LED Set	**12** [*priority*] [*device*] [*keypad*] [[*description*]]
Trouble Virtual LED Reset	**13** [*priority*] [*device*] [*keypad*] [[*description*]]

Logic Function - Define	**log** [*logic*] [*action*] [[*description*]]
AND Alarm Input	**01** [*line*] [*panel*] [*zone*] [[*description*]]
AND Supervy Open Input	**02** [*line*] [*panel*] [*zone*] [[*description*]]
AND Supervy Short Input	**03** [*line*] [*panel*] [*zone*] [[*description*]]
AND Security	**04** [*line*] [*panel*] [*zone*] [[*description*]]

Remote Action - Define	**ract** [*device*] [*keypad*] [*option*] [[*description*]]
Relay Set	**01** [*priority*] [*line*] [*panel*] [*relay*] [[*description*]]
Relay Reset	**02** [*priority*] [*line*] [*panel*] [*relay*] [[*description*]]
Activate Action	**03** [*action*] [[*description*]]
Restore Action	**04** [*action*] [[*description*]]
Activate Sequence	**05** [*sequence*] [[*description*]]
Cancel Sequence	**06** [*sequence*] [[*description*]]
Virtual LED Set	**07** [*priority*] [*device*] [*keypad*] [[*description*]]
Virtual LED Reset	**08** [*priority*] [*device*] [*keypad*] [[*description*]]

Remote Switch Zone-Def	**rem** [*line*] [*panel*] [*zone*] [*type*] [[*description*]]
Switch Output Set	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Switch Output Reset	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Switch Action	**04** [*action*] [[*description*]]
Patrol #	**05** [*patrol*] [[*description*]]
Switch Test Action	**06** [*action*] [[*description*]]
Virtual LED Set	**07** [*priority*] [*device*] [*keypad*] [[*description*]]
Virtual LED Reset	**08** [*priority*] [*device*] [*keypad*] [[*description*]]

Security Zone - Define	**sec** [*line*] [*panel*] [*zone*] [*type*][3,4] [[*description*]]
Patrol #	**02** [*patrol*] [[*description*]]
Security Set	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Security Reset	**04** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Security Action	**05** [*action*] [[*description*]]
Security Open Test Act	**06** [*action*] [[*description*]]
Security Short Test Action	**07** [*action*] [[*description*]]
Sec Short Virt LED Set	**08** [*priority*] [*device*] [*keypad*] [[*description*]]
Sec Short Virt LED Rst.	**09** [*priority*] [*device*] [*keypad*] [[*description*]]
Sec Open Virt LED Set	**10** [*priority*] [*device*] [*keypad*] [[*description*]]
Sec Open Virt LED Rst.	**11** [*priority*] [*device*] [*keypad*] [[*description*]]

Sequence - Define	**seq** [*sequence*] [[*description*]]
Delay and Action	**01** [*seconds*] [*action*] [[*description*]]

Status Zone - Define	**stat** [*line*] [*panel*] [*zone*] [*type*] [[*description*]]
Open Set	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Open Reset	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Open Action	**04** [*action*] [[*description*]]
Short Set	**05** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Short Reset	**06** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Short Action	**07** [*action*] [[*description*]]
Patrol #	**08** [*action*] [[*description*]]
Status Open Test Action	**11** [*action*] [[*description*]]
Status Short Test Action	**12** [*action*] [[*description*]]
Stat Short Virt LED Set	**13** [*priority*] [*device*] [*keypad*] [[*description*]]
Stat Short Virt LED Rst.	**14** [*priority*] [*device*] [*keypad*] [[*description*]]
Stat Open Virt LED Set	**15** [*priority*] [*device*] [*keypad*] [[*description*]]
Stat Open Virt LED Rst.	**16** [*priority*] [*device*] [*keypad*] [[*description*]]

Supervisory Zone - Define	**sup** [*line*] [*panel*] [*zone*] [*type*][5,6] [[*description*]]
Supervisory Open Set	**02** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Supervisory Open Reset	**03** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Supervisory Open Action	**04** [*action*] [[*description*]]
Supervisory Short Set	**05** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Supervisory Short Reset	**06** [*priority*] [*line*] [*panel*] [*zone*] [[*description*]]
Supervisory Short Action	**07** [*action*] [[*description*]]
Patrol #	**08** [*patrol*] [[*description*]]
Supervy Open Test Act	**09** [*action*] [[*description*]]
Supervy Short Test Act	**10** [*action*] [[*description*]]
Sup Short Virt LED Set	**11** [*priority*] [*device*] [*keypad*] [[*description*]]
Sup Short Virt LED Reset	**12** [*priority*] [*device*] [*keypad*] [[*description*]]
Sup Open Virt LED Set	**13** [*priority*] [*device*] [*keypad*] [[*description*]]
Sup Open Virt LED Reset	**14** [*priority*] [*device*] [*keypad*] [[*description*]]

Time Control - Define	**time** [*control*] [*month*] [*day*] [*day of week*] [*hour*] [*minute*] [[*description*]]

[1] Traditional Alarm Zone [type] devices:

01	Manual Pull Station
02	Smoke Detector
03	Manual Pull Station & Smoke Detector
04	Waterflow

[2] Analog Alarm Zone [type] devices:

50	1551 Ionization Smoke Detector
51	2551 Photoelectronic Smoke Detector
52	5551 Heat Detector
53	M500MF Monitor Module (Manual Pull Sta.; Smoke Detector; Waterflow; Smoke Detector & Manual Pull Sta)
54	M501MF Monitor Module (Manual Pull Sta.; Smoke

[3] Traditional security OPEN [type] devices

30	Armed Alarm
31	unarmed Trouble

[3] Traditional security CLOSED [type] devices

40	armed alarm
41	unarmed alarm

[4] Analog security OPEN [type] devices

80	M500MF Monitor Mod (armed alarm; unarmed trbl)
81	M501MF Monitor Mod (armed alarm; unarmed trbl)

[4] Analog security CLOSED [type] devices

90	M500MF Monitor Mod (armed alarm; unarmed trbl)
91	M501MF Monitor Module (armed alarm; unarmed trbl)

[5] Traditional supervisory OPEN [type] devices

10	Zone Trouble
11	HVAC trouble or alarm

[6] Traditional supervisory SHORT [type] devices

20	ZB-82, ZB8-5, ZB8-8 Module Audible zone trouble
21	HVAC trouble or alarm
22	ZB8-2, ZB8-5, ZB8-8, ZB8-5/3, ZA4-2 Module Sprinkler Supervisory
23	Watchman's Tour
24	ZB8-5/3 Audible Zone Trouble
25	ZA4-2 Audible Zone Trouble

[5] Analog supervisory OPEN [type] devices

60	M500MF Monitor Module (zone trbl; HVAC trbl or alarm)
61	M501MF Monitor Module (zone trbl; HVAC trbl or alarm)

[6] Analog supervisory SHORT [type] devices

70	M500CF Control Module (audible zone trouble)
71	M500MF Monitor Module (HVAC trouble or alarm; sprinkler supervisory; watchman's tour)
72	M501MF Monitor Module (HVAC trouble or alarm; Detector; Waterflow; Smoke Detector & Manual Pull Sta)
73	M500MF, M501MF Monitor Module Sprinkler Supervisory Zone

LEGEND

PCPU Zone Data Base Legend		
Variable Name	Valid Input	Notes
[*action*]	{1 to 9999}	
[*control*]	{1 to 9999}	
[*day*]	{1 to 31}	
[*day of week*]	{1 to 7}	1=Sun, 2=Mon, 3=Tue, 4=Wed, 5=Thu, 6=Fri, 7=Sat
[*description*]	ASCII text	Optional text field. Carriage return terminates field.
[*device*]	{1 to 99}	
[*hour*]	{0 to 23}	
[*input*]	{01 to 99}	
[*keypad*]	{1 to 9998}	9999 = "ALL"
[*line*]	{0 to 7}	
[*list*]	{1 to 9999}	
[*logic*]	{1 to 9999}	
[*minute*]	{0 to 59}	
[*month*]	{1 to 12}	
[*option*]	{1 to 99}	
[*panel*]	{1 to 62}	
[*patrol*]	{1 to 9999}	
[*priority*]	{00 to 99}	
[*seconds*]	{1 to 9999}	
[*sequence*]	{1 to 9999}	Sequence delay range: 4 to 4095 Seconds.
[*X ordinate*]	{1 to 9999}	
[*Y ordinate*]	{1 to 9999}	
[*zone*]	{01 to 99}	

Example PCPU Zone file

ASCII Text	Description
zone Database file	Defines this file as a PCPU Zone Database
ala 2 19 02 51 2nd fl smk 1-5 06 8000 06 8010 short message OK here 06 8200 06 8400 06 8500 06 8827 07 8700	Defines an alarm zone on line 2, panel 19, zone 02, using photoelectric smoke detectors. An alarm on this zone calls actions 8000, 8010, 8200, 8400, 8500 & 8827. Trouble on this zone calls action 8700.
sup 2 62 01 71 3rd fl 04 8700 05 50 02 62 16 B sel	Defines a supervisory zone on line 2, panel 62, zone 01, using a monitor module. A sup. open calls action 8700. A Sup. short sets zone 02 62 16 with priority 50. A Sup. short starts action 8700.
rem 2 07 08 00 strobe disconnect 02 50 02 07 15 04 2102 04 0708	Defines a remote switch on line 2, panel 07, zone 08 Sets zone 07 15 on line 2 with priority 50 Calls action 2102 Calls action 0708
act 0703 bld 1 fan disconnect 50 1 02 07 04 8100 04 8400 12 8100 12 8400	Defines action 0703 Sets zone 02 07 on line 1 with priority 50 Restores action 8100 Restores action 8400 Disables action 8100 disables action 8400

sec 2 01 01 80 03 50 0 01 01 04 50 2 01 01	Defines a security zone on line 2, panel 01, zone 01, using a monitor module. Sets zone 01 01 on line 0 with priority 50 on security alarm. Sets zone 01 01 on line 2 with priority 50 on reset.
log 4000 1000 01 00 01 01	Defines logic function 4000 which calls action 1000. Action 1000 called when line 00, panel 01, zone 02 in alarm.
time 8000 7 10 1 8 15	Defines time control 8000
seq 1000 01 4321 4000	Defines sequence 1000 Delays for 4321 seconds, then calls action 4000.
sta 0 01 01 01 status zone 04 1111 open action 05 50 04 01 01 short set 07 1000 short action 09 1000 open restore action	Defines a status zone on line 0, panel 01, zone 02

DCPU Database Entries

There are seven categories of information to be entered into the PCPU database. They may be entered in any order:

File type identification
Job identification
Communications card information
Base parameter information
Communications port information
Display pattern information
Node number

When available, the compiler will insert default values for all categories except panel definitions, however it is highly recommended that ALL categories be defined for documentation purposes.

Construction of the DCPU Base parameter file

Text between the two lines of asterisks must be created with the word processor and saved as *JOBNAME.D00.* NOTE: You may select any filename and filename extension you desire.
****

dcpu database file

job name: [{*40 character ASCII text string*}]
job description: [{*80 character ASCII text string*}]
job start date: [*mm*]/[*dd*]/[*yy*]
date last edited: [*mm*]/[*dd*]/[*yy*]

node number: [*nn*]{01¦02¦03}

communications card: [*nn*] {01 - 04}
card type: [{**rs-485¦rs-232¦fiber optic¦20 ma. loop**}]
baud rate: [{**9600¦4800¦2400¦1200**}]
class: [{**a¦b**}]

communications port [*nn*] {0 - 7} [{**command¦display¦printer**}]

display pattern [*x*] {a - z}
port [*n*] {0-7} [{**enabled¦disabled**}]

****
Communications port definitions:
CCA and CGP systems require a "command" port.
FCCD displays require a "display" port.
Printers require a "printer" port.

SAMPLE DCPU DATABASE ENTRY

ASCII TEXT FILE	DESCRIPTION
`dcpu database file`	Defines this as a DCPU data file
`job name: FAST Headquarters`	Enter the job name here for ID purposes
`job description: 20 building campus`	Additional job details here.
`job start date: 01/01/91`	Initial date of project
`date last edited: 01/02/91`	Date this program last edited
`node number: 10`	The address of this DCPU

`communications card: 01`
`card type: rs-485`
`baud rate: 9600`
`line class: b`
`# buildings 1 & 2`
	Defines the card in DCPU position 1 as:
	FCOM-485 card
	9600 baud communications rate
	Class B (style 4) supervision
	Your comments here

`communications card: 02`
`card type: rs-485`
`baud rate: 9600`
`line class: b`
`# buildings 3 - 10`
	Defines the card in DCPU position 2 as:
	FCOM-485 card
	9600 baud communications rate
	Class B (style 4) supervision
	Your comments here

`communications card: 03`
`card type: rs-485`
`baud rate: 9600`
`line class: B`
`# buildings 11- 15`
	Defines the card in DCPU position 3 as:
	FCOM-485 card
	9600 baud communications rate
	Class B (style 4) supervision
	Your comments here

```
communications card: 04
     card type: rs-485
     baud rate: 9600
     line class: b
     # buildings 16 - 20
```

Defines the card in DCPU position 4 as:
FCOM-485 card
9600 baud communications rate
Class B (style 4) supervision
Your comments here

```
communications port: 01 command
communications port: 02 command
communications port: 03 display
communications port: 04 command
communications port: 05 command
communications port: 06 command
communications port: 07 display
communications port: 08 display
```

Defines comm port 1 as a command port
Defines comm port 2 as a command port
Defines comm port 3 as a display port
Defines comm port 4 as a command port
Defines comm port 5 as a command port
Defines comm port 6 as a command port
Defines comm port 7 as a display port
Defines comm port 8 as a display port

```
display pattern: a
     port: 01 enabled
     port: 02 enabled
     port: 03 disabled
     port: 04 enabled
     port: 05 disabled
     port: 06 disabled
     port: 07 disabled
     port: 08 disabled
```

Defines display pattern "A" as:
port: 01 enabled
port: 02 enabled
port: 03 disabled
port: 04 enabled
port: 05 disabled
port: 06 disabled
port: 07 disabled
port: 08 disabled

```
display pattern: b
     port: 01 enabled
     port: 02 enabled
     port: 03 enabled
     port: 04 enabled
     port: 05 disabled
     port: 06 enabled
     port: 07 disabled
     port: 08 enabled
```

Defines display pattern "B" as:
port: 01 enabled
port: 02 enabled
port: 03 enabled
port: 04 enabled
port: 05 disabled
port: 06 enabled
port: 07 disabled
port: 08 enabled

display pattern: c
port: 01 enabled
port: 02 enabled
port: 03 enabled
port: 04 enabled
port: 05 disabled
port: 06 enabled
port: 07 disabled
port: 08 enabled

Defines display pattern "C" as:
port: 01 enabled
port: 02 enabled
port: 03 enabled
port: 04 enabled
port: 05 disabled
port: 06 enabled
port: 07 disabled
port: 08 enabled

DCPU Message File Database

Two messages types make up the DCPU Message Database:

Zone messages are transmitted upon activation or restoration of a zone. The format for a zone message is:

Z [*LL*] [*PP*] [*ZZ*] [*p* "{*ASCII text string*}"]

Where: Z = Zone message identifier, identifying this as a zone message; LL = Line #; PP = Panel #; ZZ = Zone #; p = Display pattern. The quotation marks are required to define the ASCII text string.

EXAMPLE Zone Message:

The message for zone 14 at panel address 20 on line 00 is 'BLD 1, FLOOR 4, ROOM 404Ω, SMOKE DETECTOR ACTIVATION'.

This is entered as follows:

```
Z 00 20 14 M "BLD 1, FLOOR 4, ROOM 404\234, SMOKE DETECTOR
ACTIVATION"
```

In this example:

Z = Zone message identifier
00 = Line #
20 = Panel #
14 = Zone #
M = Message display pattern
"BLD 1, FLOOR 4, ROOM 404\234, SMOKE DETECTOR ACTIVATION" is the desired text message.

Note that the graphics character Ω (omega) used in the example zone message is represented by a backslash followed by its three digit decimal ASCII value (234). The decimal values of extended ASCII characters may be found in any DOS textbook.

Action messages are transmitted upon activation or restoration of an action. The format for an action message is:

A [*nnnn*] [*p* "{*ASCII text string*}"]

Where: A = Action message identifier, identifying this as an action message; nnnn = action #; p = Display pattern. The quotation marks are required to define the ASCII text string.

EXAMPLE Action Message:

The message for action 5678 'BLD 1, FLOOR 4, ROOM 404Ω, HVAC SEQUENCE STARTED'.

This is entered as follows:

```
A 5678 M "BLD 1, FLOOR 4, ROOM 404\234, HVAC SEQUENCE STARTED"
```

In this example:

A = Action message identifier
5678 = Action #
M = Message display pattern
"BLD 1, FLOOR 4, ROOM 404\234, HVAC SEQUENCE STARTED" is the desired text message.

Note that the Ω (omega) character is represented by a backslash followed by its three digit decimal ASCII value (234). The decimal values of extended ASCII characters may be found in any DOS textbook.

NOTES:

1. To cause the printer to generate a line feed in the middle of a message string, insert **\n** (backslash n).

2. To cause the printer to generate a carriage return, insert **\r** (backslash r).

3. To print quotation marks as part of the text string, use the control code **\"** (backslash ").

4. To include any extended ASCII character as part of the text string insert **\[*xxx*]** (backslash [three digit decimal value of extended ASCII character]).

5. To include a backslash as part of the text string, insert **** (backslash backslash).

6. To include a TAB as part of the text string, insert **\t** (backslash t).

DCPU Message File DatabaseThe messages listed below **MUST** be added to each network's DCPU message file data base. Refer to the Document Notation Conventions on page 1.1.1.2.

```
# THE FOLLOWING MESSAGES ARE NETWORK COMMUNICATIONS PSEUDO POINTS:

Z 00 01 01 [p{a-z}] "POLLING CPU FAULT"

Z 00 01 10 [p{a-z}] "DCPU #1 HIGH ORDER NETWORK FAULT"
Z 00 01 11 [p{a-z}] "DCPU #1 COMMUNICATIONS LINE 00 FAULT"
Z 00 01 12 [p{a-z}] "DCPU #1 COMMUNICATIONS LINE 01 FAULT"
Z 00 01 13 [p{a-z}] "DCPU #1 COMMUNICATIONS LINE 02 FAULT"
Z 00 01 14 [p{a-z}] "DCPU #1 COMMUNICATIONS LINE 03 FAULT"
Z 00 01 15 [p{a-z}] "DCPU #1 COMMUNICATIONS LINE 04 FAULT"
Z 00 01 16 [p{a-z}] "DCPU #1 COMMUNICATIONS LINE 05 FAULT"
Z 00 01 17 [p{a-z}] "DCPU #1 COMMUNICATIONS LINE 06 FAULT"
Z 00 01 18 [p{a-z}] "DCPU #1 COMMUNICATIONS LINE 07 FAULT"

Z 00 01 20 [p{a-z}] "DCPU #2 HIGH ORDER NETWORK FAULT"
Z 00 01 21 [p{a-z}] "DCPU #2 COMMUNICATIONS LINE 00 FAULT"
Z 00 01 22 [p{a-z}] "DCPU #2 COMMUNICATIONS LINE 01 FAULT"
Z 00 01 23 [p{a-z}] "DCPU #2 COMMUNICATIONS LINE 02 FAULT"
Z 00 01 24 [p{a-z}] "DCPU #2 COMMUNICATIONS LINE 03 FAULT"
Z 00 01 25 [p{a-z}] "DCPU #2 COMMUNICATIONS LINE 04 FAULT"
Z 00 01 26 [p{a-z}] "DCPU #2 COMMUNICATIONS LINE 05 FAULT"
Z 00 01 27 [p{a-z}] "DCPU #2 COMMUNICATIONS LINE 06 FAULT"
Z 00 01 28 [p{a-z}] "DCPU #2 COMMUNICATIONS LINE 07 FAULT"

Z 00 01 30 [p{a-z}] "DCPU #3 HIGH ORDER NETWORK FAULT"
Z 00 01 31 [p{a-z}] "DCPU #3 COMMUNICATIONS LINE 00 FAULT"
Z 00 01 32 [p{a-z}] "DCPU #3 COMMUNICATIONS LINE 01 FAULT"
Z 00 01 33 [p{a-z}] "DCPU #3 COMMUNICATIONS LINE 02 FAULT"
Z 00 01 34 [p{a-z}] "DCPU #3 COMMUNICATIONS LINE 03 FAULT"
Z 00 01 35 [p{a-z}] "DCPU #3 COMMUNICATIONS LINE 04 FAULT"
Z 00 01 36 [p{a-z}] "DCPU #3 COMMUNICATIONS LINE 05 FAULT"
Z 00 01 37 [p{a-z}] "DCPU #3 COMMUNICATIONS LINE 06 FAULT"
Z 00 01 38 [p{a-z}] "DCPU #3 COMMUNICATIONS LINE 07 FAULT"
```

```
# THE FOLLOWING MESSAGES ARE ACTION PSEUDO POINTS:

A 9002 [p{a-z}] "SYSTEM RESET IN PROGRESS'
A 9003 [p{a-z}] "DRILL/ALL CALL"
A 9004 [p{a-z}] "ALARM SILENCE"
A 9011 [p{a-z}] "1st SYSTEM ALARM"
A 9012 [p{a-z}] "2nd SYSTEM ALARM"
A 9013 [p{a-z}] "3rd SYSTEM ALARM"
A 9014 [p{a-z}] "4th SYSTEM ALARM"
A 9015 [p{a-z}] "5th SYSTEM ALARM"
A 9016 [p{a-z}] "6th SYSTEM ALARM"
A 9017 [p{a-z}] "7th SYSTEM ALARM"
A 9018 [p{a-z}] "8th SYSTEM ALARM"
A 9019 [p{a-z}] "9th SYSTEM ALARM"
A 9020 [p{a-z}] "10th SYSTEM ALARM"
```

DCPU CONFIGURATION WORKSHEET

DCPU Node # __ __

DCPU CONFIGURATION WORKSHEET								
DISPLAY PATTERN	CARD 01 [ ] RS-232 [ ] RS-485 [ ] 20 mA [ ] FIBER [ ] 1200 BAUD [ ] 2400 BAUD [ ] 4800 BAUD [ ] 9600 BAUD [ ] CLASS A [ ] CLASS B		CARD 02 [ ] RS-232 [ ] RS-485 [ ] 20 mA [ ] FIBER [ ] 1200 BAUD [ ] 2400 BAUD [ ] 4800 BAUD [ ] 9600 BAUD [ ] CLASS A [ ] CLASS B		CARD 03 [ ] RS-232 [ ] RS-485 [ ] 20 mA [ ] FIBER [ ] 1200 BAUD [ ] 2400 BAUD [ ] 4800 BAUD [ ] 9600 BAUD [ ] CLASS A [ ] CLASS B		CARD 04 [ ] RS-232 [ ] RS-485 [ ] 20 mA [ ] FIBER [ ] 1200 BAUD [ ] 2400 BAUD [ ] 4800 BAUD [ ] 9600 BAUD [ ] CLASS A [ ] CLASS B	
	PORT 01 [ ] COMMAND [ ] DISPLAY [ ] PRINTER	PORT 02 [ ] COMMAND [ ] DISPLAY [ ] PRINTER	PORT 03 [ ] COMMAND [ ] DISPLAY [ ] PRINTER	PORT 04 [ ] COMMAND [ ] DISPLAY [ ] PRINTER	PORT 05 [ ] COMMAND [ ] DISPLAY [ ] PRINTER	PORT 06 [ ] COMMAND [ ] DISPLAY [ ] PRINTER	PORT 07 [ ] COMMAND [ ] DISPLAY [ ] PRINTER	PORT 08 [ ] COMMAND [ ] DISPLAY [ ] PRINTER
A								
B								
C								
D								
E								
F								
G								
H								
I								
J								
K								
L								
M								
N								
O								
P								
Q								
R								
S								
T								
U								
V								
W								
X								
Y								
Z								

Revised 01/26/93

DCPU MESSAGE WORKSHEET

1) Zone Message format = Z [ll] [pp] [zz] [p] "Text String"

Z ___ ___ ___ ___ ___ ___ ___ "_____"

Z ___ ___ ___ ___ ___ ___ ___ "_____"

Z ___ ___ ___ ___ ___ ___ ___ "_____"

Z ___ ___ ___ ___ ___ ___ ___ "_____"

Z ___ ___ ___ ___ ___ ___ ___ "_____"

Z ___ ___ ___ ___ ___ ___ ___ "_____"

2) Action Message format = A [nnnn] [p] "Text String"

A ___ ___ ___ ___ ___ "_____"

A ___ ___ ___ ___ ___ "_____"

A ___ ___ ___ ___ ___ "_____"

A ___ ___ ___ ___ ___ "_____"

A ___ ___ ___ ___ ___ "_____"

A ___ ___ ___ ___ ___ "_____"

3) General Message format = G [nnnn] [p] "Text String"

G ___ ___ ___ ___ ___ "_____"

G ___ ___ ___ ___ ___ "_____"

G ___ ___ ___ ___ ___ "_____"

G ___ ___ ___ ___ ___ "_____"

G ___ ___ ___ ___ ___ "_____"

G ___ ___ ___ ___ ___ "_____"

PCPU CONFIGURATION WORKSHEET

PCPU Node # __ __

INSTALLATION SITE: [ ] AMERICAN [ ] EUROPEAN

WALK TEST: [ ] AUDIBLE [ ] SILENT

COMMON TEST BEEP: [ ] ENABLED [ ] DISABLED

SAN COMMUNICATIONS: [ ] ENABLED [ ] DISABLED

ALTERNATE SENSITIVITY START: __ __ : __ __

ALTERNATE SENSITIVITY END: __ __ : __ __

START ACTION: __ __ __ __

START SEQUENCE: __ __ __ __

<table>
<tr><th colspan="8">PCPU COMMUNICATIONS CARD CONFIGURATION</th></tr>
<tr><td colspan="2">CARD 01
[ ] RS-232
[ ] RS-485
[ ] 20 mA.
[ ] FIBER
[ ] 1200 BAUD
[ ] 2400 BAUD
[ ] 4800 BAUD
[ ] 9600 BAUD
[ ] CLASS A
[ ] CLASS B</td><td colspan="2">CARD 02
[ ] RS-232
[ ] RS-485
[ ] 20 mA.
[ ] FIBER
[ ] 1200 BAUD
[ ] 2400 BAUD
[ ] 4800 BAUD
[ ] 9600 BAUD
[ ] CLASS A
[ ] CLASS B</td><td colspan="2">CARD 03
[ ] RS-232
[ ] RS-485
[ ] 20 mA.
[ ] FIBER
[ ] 1200 BAUD
[ ] 2400 BAUD
[ ] 4800 BAUD
[ ] 9600 BAUD
[ ] CLASS A
[ ] CLASS B</td><td colspan="2">CARD 04
[ ] RS-232
[ ] RS-485
[ ] 20 mA.
[ ] FIBER
[ ] 1200 BAUD
[ ] 2400 BAUD
[ ] 4800 BAUD
[ ] 9600 BAUD
[ ] CLASS A
[ ] CLASS B</td></tr>
<tr><td>PORT 00</td><td>PORT 01</td><td>PORT 02</td><td>PORT 03</td><td>PORT 04</td><td>PORT 05</td><td>PORT 06</td><td>PORT 07</td></tr>
</table>

PCPU LINE # __ __

PCPU NETWORK DEFINITION WORKSHEET						
PANEL #	POLL BIT		PANEL TYPE			
	ENABLE	DISABLE	IRC1	IRC3	REMOTE ANNUNCIATOR (SC = SANCOM)	AUDIO PANEL
01^						
02^						
03^						
04^						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

Revised 01/26/93

PCPU NETWORK DEFINITION WORKSHEET						
PANEL #	POLL BIT		PANEL TYPE			
	ENABLE	DISABLE	IRC1	IRC3	REMOTE ANNUNCIATOR (SC = SANCOM)	AUDIO PANEL
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						

^ = Not valid for line 00.

[FCCPROGM.DOC]

FCCS PROGRAMMING

OVERVIEW

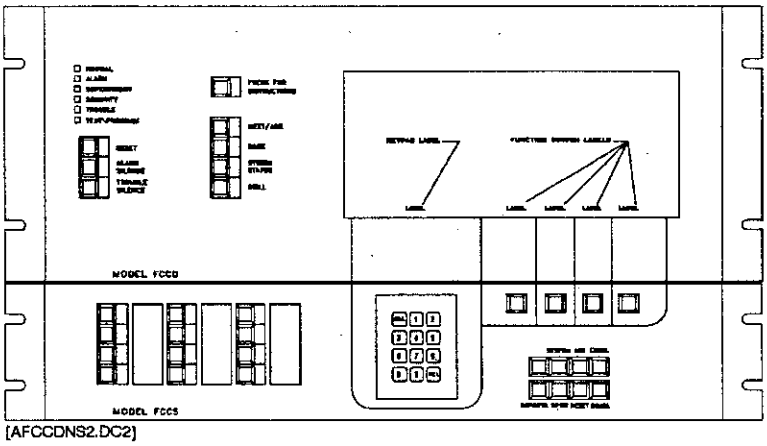
The FCCS switch panel is a 19" rack mounted panel with control switches for network functions, for use with the FCC multi-line networks. The FCCS uses configurable switch functions in combination with the FCCD display to provide a vast selection of designer configurable intuitive switching and status monitoring functions. A virtual LED (VLED) matrix on the FCCD is used to display individual status points. VLED matrix display capability is implemented during FCCS and PCPU programming. The status of any network point/function listed in the FCCS configuration program may be point annunciated using the FCCS and the virtual LED technique.

The FCCS is divided into three switch banks and a key pad. The bank of switches on the left side of the FCCS, the Device Selection Switches (DSS), is comprised of 3 columns of 4 switches. Device Selection Switches select device types such as speakers, fans, doors, elevators, on which a control or status operation is to be performed. DSS switch functions are designer definable, and identified with a printed label adjacent to each switch. Typical DSS switching functions are: speakers, phone, HVAC, and doors. Each switch can control up to 9,998 devices.

The four Function Switches located at the top of the FCCS are "soft switches." Each Function Switch's purpose is indicated on the FCCD display immediately above the switch, and changes depending on which Device Select Switch which has been operated. Typical Function Switch functions (and labels) are: on, off, auto, and status.

The eight Network Control Switches are normally hidden behind a removable cover below the function switches. The network control switches provide network maintenance, control and status functions not required during normal or alarm operations.

The keypad contains a 10 numeric keys, an ALL key and a DEL (delete) key. The keypad keys are also "soft switches", whose operations are dependant on which Device Select Switch has been operated. Typical FCCS keypad labels are: floor, building and zone. Keypad and function switch labels are illustrated in Figure 1.



[AFCCDNS2.DC2]

Figure 1 - An FCCS Switch Panel installed below an FCCD Display Panel

FCC networks equipped with an FCCS switch panel are capable of using a virtual LED (VLED) status matrix on the FCCD screen to provide individual point annunciation of network status. Each of the 12 DSS switches may have a VLED matrix display consisting of one or more screens of information.

An active point is indicated by a "*" within the parentheses. A point's identification is determined by its virtual LED position within the matrix. The active point in the example matrix below is 0121.

[*Switch Label*] Status List By [*Keypad Label*]

	0	1	2	3	4	5	6	7	8	9	
0100	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0100
0110	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0110
0120	( )	(*)	( )	( )	( )	( )	( )	( )	( )	( )	0120
0130	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0130
0140	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0140
0150	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0150
0160	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0160
0170	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0170
0180	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0180
0190	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	0190
<DEL> to Exit							HOME	END	PG UP	PG DN	

Figure 2 - Typical Virtual LED Status Display Screen

In the VLED mode, the four function switches on the FCCS are used to scroll the virtual LED display when more than one screen of information is available. VLED status displays are automatically identified using labels constructed from the DSS and Keypad labels.

HOME = Scrolls virtual LED display to first screen.
END = Scrolls virtual LED display to last screen.
PG UP = PAGE UP; Scrolls virtual LED display to previous screen.
PG DN = PAGE DOWN; Scrolls virtual LED display to next screen.
DEL = DELETE; Exits VLED display.

FCCS CONFIGURATION

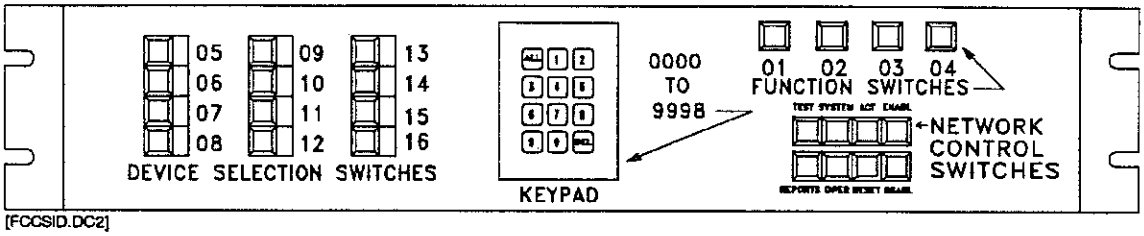


Figure 3 - FCCS Switch Identification Numbers

For FCCS programming purposes, Device Selection and Function switches are identified by the switch numbers adjacent to each switch as shown in Figure 3.

Programming the FCCS is done in two steps. First, the FCCS switches must be configured with the required functions/labels and virtual LED (VLED) range limits. Second, remote actions for each device selection switch must be defined and entered into the PCPU data base.

1.0 An FCCS Configuration Worksheet should be filled out as follows:

1.1 The 12 FCCS device selection switches (05 - 16) must be defined by a function/label from column 2 of Table 1. Selection of this function/label automatically configures the operation of the 4 FCCS Function Switches (01 - 04) and their labels as shown in Table 1, columns 3 to 6. This function/label also appears in the header of the VLED status matrix. Fill out and install the paper labels next to each column of Device Selection Switches on the FCCS.

1.2 A keypad label must be selected from Table 2 for each of the device selection switches. The keypad label indicates the unit measure of keypad entries for the function being defined, i.e. floor #, building #, zone #, etc. Once entered into the FCCS database, the appropriate label will appear in the lower system window of the FCCD display panel when a device select switch is operated. This label also appears in the header of the VLED status matrix display.

2.0 Each of the 12 device selection switches (DSS's) and three function switches has the ability to provide a point display for 9,998 status points as a virtual LED matrix, for a network total of almost 150,000 points. To eliminate unwanted points appearing on the VLED display, VLED ranges define the limits of the points to be annunciated. Up to ten ranges may be used to define the points to be annunciated on the VLED display for each Device Selection Switch.

2.1 Virtual LED numbers are arbitrarily selected to relate to the application being annunciated. For example in a 6 story building with 20 rooms per floor, detectors on the first floor could be assigned from the 0100 series of VLED numbers, with the first room lighting VLED 0101, the second room lighting VLED 0102, and the 20th room lighting VLED 0120. Second floor rooms would be assigned from the 0200 series of VLED numbers, with the sixth floor rooms using the 0600 series VLED numbers. In order to simplify the VLED alarm status display, range limits for these VLEDs would be: 0101-0120; 0201-0220; 0301-0320; 0401-0420; 0501-0520; and 0601-0620. The VLED alarm status display with these range limits appears in Figure 4. Enter the appropriate ranges in the worksheet.

3.0 A keypad label must be selected from Table 2 for the Alarm (01), Supervisory short (02), and the supervisory open (03) Function Switches. The keypad label indicates the unit measure of keypad entries for the function being defined, i.e. floor #, building #, zone #, etc. Once entered into the FCCS database, the appropriate label will appear above the keypad in the lower system window of the FCCD display panel when a switch is operated. This label also appears in the header of the VLED status matrix display.

3.1 Virtual LED numbers are arbitrarily selected to relate to the function switch application being annunciated. In order to simplify the VLED function switch status display, range limits may be assigned in the same manner they were for the Function Select Switches. Enter the appropriate ranges in the worksheet.

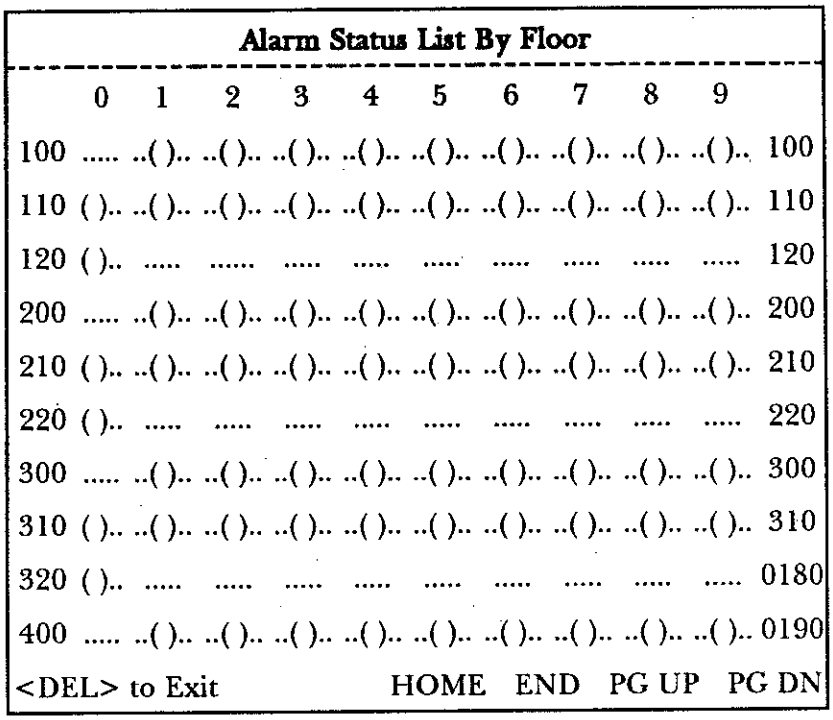


Figure 4 - VLED Alarm Status Matrix Display

4.0 With the FCCS worksheet filled out, enter this information into the FCCS as described in the FCCS program entry section.

5.0 Start filling out the FCCS remote action worksheets with the switch number and function of each of the FCCS Device Selection switches. Each remote action switch *sequence* requires a worksheet. Remember that each keypad entry is unique, requiring a separate remote action/worksheet. Additional information on filling out the FCCS remote action worksheets appears later in this document.

Table 1 - FCCS Device Switch Function Selections					
Selection Index #	Device Selection Switch Label	Switch 01 Function	Switch 02 Function	Switch 03 Function	Switch 04 Function
00	Disables Switch				
01	PURGE	ON	OFF	AUTO	STATUS
02	PRESSURE	ON	OFF	AUTO	STATUS
03	FAN	ON	OFF	AUTO	STATUS
04	DAMPER	OPEN	CLOSE	AUTO	STATUS
05	FIRE DOOR	LOCK	UNLOCK	STATUS	
06	ELEVATOR	RECALL	NORMAL	STATUS	
07	PHONE	SELECT	DESELECT	STATUS	
08	SPEAKER	ON	OFF	STATUS	
09	AUDIO 01	ON	OFF	STATUS	
10	AUDIO 02	ON	OFF	STATUS	
11	AUDIO 03	ON	OFF	STATUS	
12	AUDIO 04	ON	OFF	STATUS	
13	AUDIO 05	ON	OFF	STATUS	
14	AUDIO 06	ON	OFF	STATUS	
15	AUDIO 07	ON	OFF	STATUS	
16	AUDIO 08	ON	OFF	STATUS	
17	AUDIO 09	ON	OFF	STATUS	
18	AUDIO 10	ON	OFF	STATUS	
19	STROBE	ON	OFF	STATUS	
20	HORN	ON	OFF	STATUS	
21	AUDIBLE	ON	OFF	STATUS	
22	VISUAL	ON	OFF	STATUS	
23	LIGHT	ON	OFF	STATUS	
24	SECURITY LOCK	LOCK	UNLOCK	STATUS	
25	PATROL	START	STOP	STATUS	
26	EXHAUST	ON	OFF	AUTO	STATUS
27	CAMERA SELECT	ON	OFF	STATUS	
28	CAMERA POSITION	LEFT	RIGHT	UP	DOWN
29	CAMERA WIPER	START	STOP	STATUS	
30	CAMERA LENS	ZOOM IN	ZOOM OUT	FOCUS IN	FOCUS OUT
31	PERIMETER	SECURE	BYPASS	STATUS	
32	SECURITY	SECURE	BYPASS	STATUS	
33	SCH. HOLIDAY	ON	OFF	STATUS	
34	WEEKDAY	ON	OFF	STATUS	
35	WEEKEND	ON	OFF	STATUS	
36	DAY MODE	ON	OFF	STATUS	
37	NIGHT MODE	ON	OFF	STATUS	
38	PUMP	START	STOP	STATUS	
39	GENERATOR	START	STOP	STATUS	
40	MOTOR	START	STOP	STATUS	
41	LIGHTING	ON	OFF	AUTO	STATUS
42	HEAT	ON	OFF	AUTO	STATUS
43	COOLING	ON	OFF	AUTO	STATUS
44	SOLENOID	ON	OFF	AUTO	STATUS
45	RELAY	ON	OFF	AUTO	STATUS
46	VALVE	ON	OFF	AUTO	STATUS
47	PROCESS	ON	OFF	AUTO	STATUS

Table 2 - FCCS Keyboard Label Selection	
Selection #	Keypad Label
1	FLOOR
2	FLR/AREA,
3	BUILDING,
4	BLDG/FLR,
5	ZONE,
6	GROUP,
7	FLR/ROOM,
8	BLD/RM,
9	SECTOR,
10	OPERATION

FCCS PROGRAM ENTRY

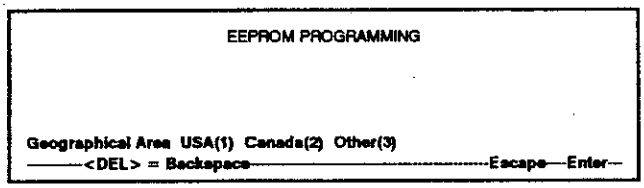
A FCCS configuration worksheet should be filled out listing the definition index number and keypad label number for each of the 12 device selection switches to be configured.

1.0 Enter the FCCS program mode:

☞ Press and release device selection switches 08 & 09 *simultaneously.*

☞ Enter a level 3 password. The default password is "3333."

The FCCD display shows:



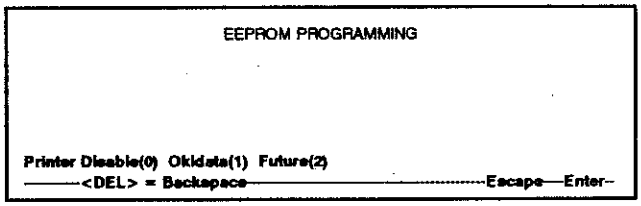
■ The bottom line of text will not appear if the FCCS is not plugged into the FCCD.

■ NOTE: The FCCD being programmed will go into communications failure which will be annunciated on other display devices connected to the DCPU.

1.1 Enter geographical information:

☞ Key in the digit for the appropriate geographical area. The DEL key may be used to delete an entry. In an alarm condition, the USA option illuminates the trouble LED for disabled points, while the Canadian option does not light the trouble LED for disabled points.

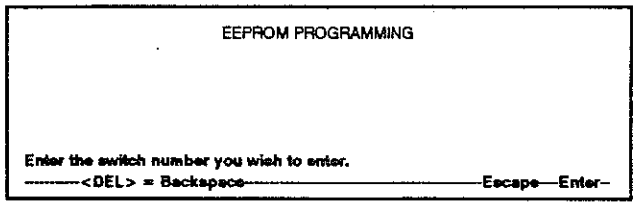
The FCCD display shows:



1.2 Enter Printer information:

☞ Key in the 1 digit for the appropriate FCCD printer option. The DEL key may be used to delete an entry.

The FCCD display shows:

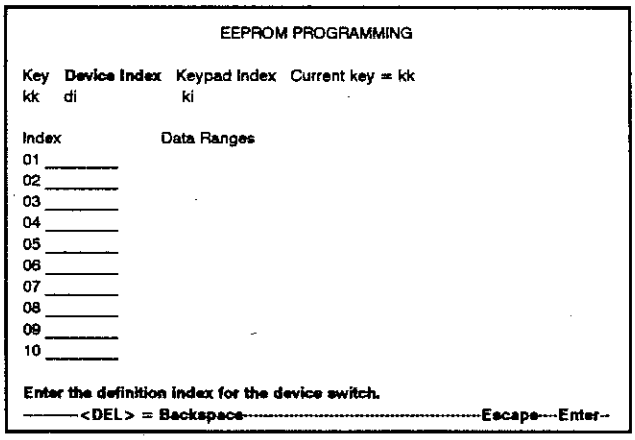


2.0 Program the Device Selection Switches (DSS):

2.1 Select a DSS to be configured:

☞ Key in the two digit identification number of the device selection switch to be programmed. Switch identification numbers are shown in Figure 3.

The FCCD display shows:

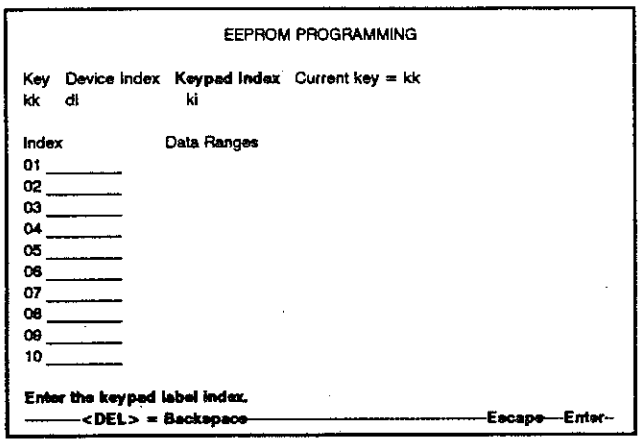


■ The active device selection switch identification number entered in the previous step appears in the areas shown as "kk."

2.2 Select a definition index (function label) for the DSS being programmed:

☞ Key in the two digit DSS label index number from Table 1 which is to appear in the display when this DSS is operated.

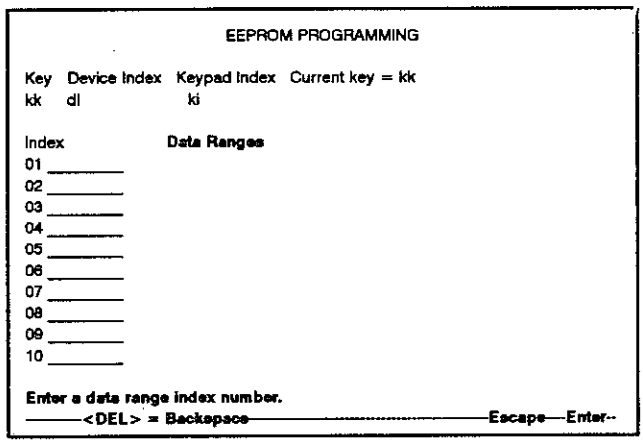
The FCCD display shows:



2.3 Select a keypad label for the DSS being programmed:

☞ Key in a two digit keypad index number from Table 2, for the label which is to appear above the keypad in the display when this DSS is operated.

The FCCD display shows:

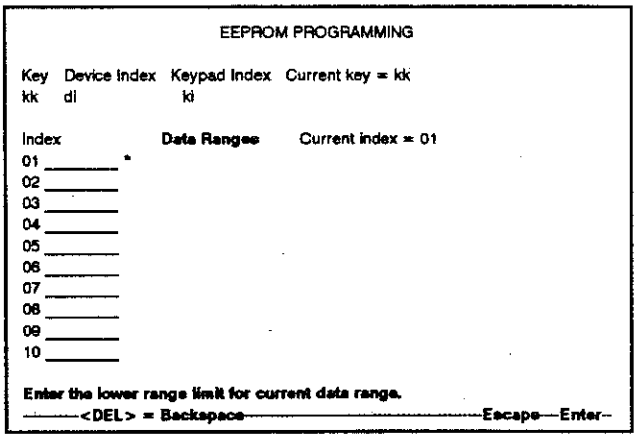


■ The previously selected keypad and device label index numbers appears in the areas shown as "ki" and "di", respectively.

2.4 Define the VLED matrix ranges for the DSS:

☞ Key in a two digit VLED range index number. VLED ranges must start with range index 01 and have consecutive range index numbers. The first empty range index identifies the end of the VLED matrix range list.

The FCCD display shows:

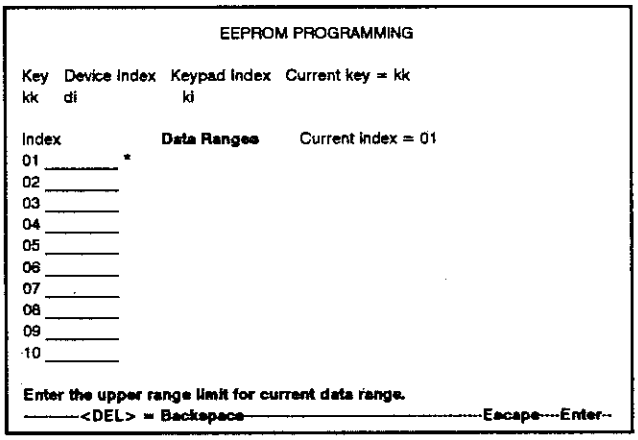


■ An "*" appears next to the selected index, whose index number is indicated as the "Current index = xx". Index 01 is illustrated in the figure above.

2.5 Enter the lower limit of the index range:

☞ Key in the 4 digit lower range limit for this range index.

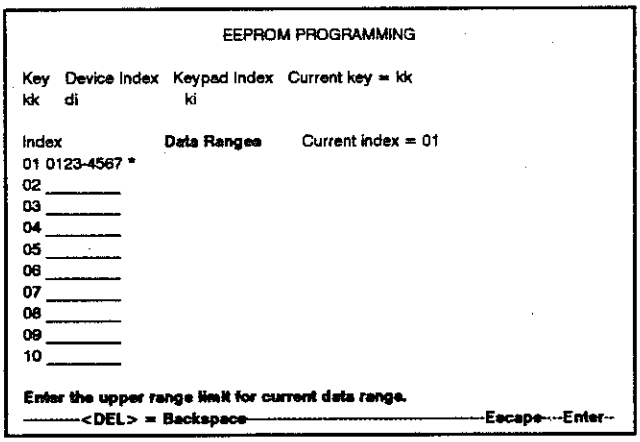
The FCCD display shows:



2.6 Enter the upper limit of the index range:

☞ Key in the 4 digit upper range limit for this range index.

The FCCD display shows:



- To delete a previously entered range, key in range 0000 - 0000.

- The FCCD display returns to step 2.4 for selection of another data range index for this Device Selection Switch.

- To exit this section, press the ESCAPE (F03) switch.

- Upon Exiting this section, the display returns to step 2.1 to program another DSS. To exit the program after the desired range indexes have been defined, press the ESCAPE (F03) switch.

- The FCCD will reboot. Having been in communications failure during programming, two messages will appear. The FCCD communications failure and FCCD communications restoration must be acknowledged by the operator in order to return to the normal display.

PCPU DATABASE PROGRAMMING FOR THE FCCS

Network control via the FCCS is accomplished using remote actions (RACTs) stored in the PCPU zone database files. The format for remote actions is:

RACT [*device*{05-16}] [*keypad*] [*option*{01, 02, 03}]

Where:
RACT = Remote action header
device = Device selection switch number
keypad = Keypad entry. (NOTE: 9999 is reserved for the "ALL" selection.
option = Function switch number

EXAMPLE:

Device selection switch 05 was previously defined as "SPEAKER" (from Table 1), and the key pad label is "FLOOR" (from Table 2).

Programming the first floor to turn the speakers on via FCCS device selection switch 05, the remote action statements in the PCPU zone database file appear as:

```
RACT 05 0001 01 FLOOR 1 SPEAKERS ON
```

"RACT" identifies this statement as a remote action.

"05" is the FCCS device selection switch associated with this action (previously defined as the SPEAKER switch in this example).

"0001" is the number which must be entered into the keypad to initiate *this* remote action. In this example, the keypad is labeled "FLOOR" (from Table 2), so "0001" defines this remote action as one relating to the first (0001) floor.

"01" defines this remote action as one which is associated with the first function switch. From Table 1, defining FCCS device selection switch 05 as a SPEAKER switch automatically defines the first FCCS function switch as "ON".

"FLOOR 1 SPEAKERS ON" is a program comment statement, identifying the function of this section of program code.

A example listing for the remote action defined above follows:

```
RACT 05 0001 01 FLOOR 1 SPEAKERS ON
01 50 00 06 45 Output Set
02 50 00 23 03 Output Reset
03 8010 Activate Action
04 8011 Restore Action
05 3010 Activate Sequence
06 3011 Restore Sequence
07 50 05 0001 Virtual LED Set
08 50 06 0001 Virtual LED Reset
```

Each FCCS device selection switch has two or more function switches associated with it. The previous example turned "ON" the 1st floor speaker circuit. A similar remote action statement is required to turn these speakers "OFF."

```
RACT 05 0001 02 FLOOR 1 SPEAKERS OFF
```

"RACT" identifies this statement as a remote action.

"05" is the FCCS device selection switch associated with this action (previously defined as the SPEAKER switch in this example).

"0001" is the number which must be entered into the keypad to initiate *this* remote action. In this example, the keypad is labeled "FLOOR" (from Table 2), so "0001" defines this remote action as one relating to the first (0001) floor.

"02" defines this remote action as one which is associated with the first function switch. From Table 1, defining FCCS device selection switch 05 as a SPEAKER switch automatically defines the second FCCS function switch as "OFF".

"FLOOR 1 SPEAKERS OFF" is a program comment statement, identifying the function of this section of program code.

The balance of the program statements for this remote action return the first floor speaker circuit to the silenced condition.

VIRTUAL LED DISPLAY PROGRAMMING IN THE PCPU DATABASE

Virtual LEDs are operated similar to network outputs, can be set, reset and have priorities. Virtual LEDs may be used as action, alarm zone, remote action, remote switch, security zone, status zone and supervisory zone responses. **VLEDs must be programmed for *all* points required to generate a VLED status display.** Refer to the PCPU zone data base format listing for specific virtual LED function codes.

The format for virtual LED *alarm* responses is listed below:

Alarm Zone - Define	**ala** [*line*] [*panel*] [*zone*] [*type*] [[*description*]]
Alarm Virtual LED Set	**10** [*priority*] [*device*] [*keypad*] [[*description*]]
Alarm Virtual LED Reset	**11** [*priority*] [*device*] [*keypad*] [[*description*]]
Trouble Virtual LED Set	**12** [*priority*] [*device*] [*keypad*] [[*description*]]
Trouble Virtual LED Reset	**13** [*priority*] [*device*] [*keypad*] [[*description*]]

priority = output activation priority {00-99}
device = **01 → alarm; 02 → sup short; 03 → sup open**; FCCS device select switch {05-16}
keypad = keypad switch entry {0001-9999} (floor number in this example)
description = program comment

EXAMPLE

Two addressable detectors on the first floor of a building are required to be annunciated as the same point. One virtual LED is assigned for both zones. Alarm responses for the two detectors appears below:

```
ALA 00 05 26 71 EAST CORRIDOR SMOKE
       10 50 01 0001 1st FLOOR SMOKE AREA 1
       12 50 03 0001 1st FLOOR TROUBLE

ALA 00 05 27 71 WEST CORRIDOR SMOKE
       10 50 01 0001 1st FLOOR SMOKE AREA 1
       12 50 03 0001 1st FLOOR TROUBLE
```

The virtual LED display may be used to point annunciate the status of any points related to the device select switches on the FCCS.

EXAMPLE

FCCS device selection switch 05 has been previously defined as a speaker control. All speaker zones should have a virtual LED included in the zone response. The format for virtual LED *supervisory* responses is listed below:

Supervisory Zone - Define	**sup** [*line*] [*panel*] [*zone*] [*type*][5,6] [[*description*]]
Sup Short Virt LED Set	**11** [*priority*] [*device*] [*keypad*] [[*description*]]
Sup Short Virt LED Reset	**12** [*priority*] [*device*] [*keypad*] [[*description*]]
Sup Open Virt LED Set	**13** [*priority*] [*device*] [*keypad*] [[*description*]]
Sup Open Virt LED Reset	**14** [*priority*] [*device*] [*keypad*] [[*description*]]

priority = output activation priority {00-99}
device = **01 → alarm; 02 → sup short; 03 → sup open**; FCCS device select switch {05-16}
keypad = keypad switch entry {0000-9999} (floor number in this example)
description = program comment

Supervisory responses for speaker zones on the 1st and 32nd floors appears below:

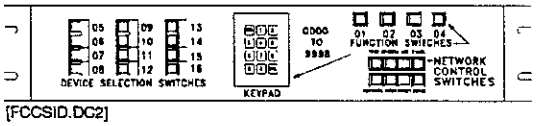
```
SUP 00 06 04 03 1st FLOOR SPEAKER ZONE
       06 60 00 06 04 SUPV. SHORT RESET
       13 50 05 0001 TROUBLE VIRTUAL LED SET
       11 50 03 0001 SHORT VIRTUAL LED SET

SUP 00 24 04 03 32nd FLOOR SPEAKER ZONE
       06 60 00 06 04 SUPV. SHORT RESET
       13 50 05 0032 TROUBLE VIRTUAL LED SET
       11 50 03 0032 SHORT VIRTUAL LED SET
```

A status request from the FCCS scans all virtual LEDs, with set LEDS indicated by a "*" in the virtual LED display matrix.

[FCCSPG01.INS]

FCCS CONFIGURATION WORKSHEET

FCCS DEVICE SELECTION SWITCH #	DEFINITION INDEX # (TABLE 1)	KEYPAD LABEL # (TABLE 2)	Virtual LED Matrix Range(s) {0001 - 9999}				
01	ALARM						
02	SUP. SHORT						
03	SUP. OPEN						
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							



[FCCSID.DC2]

FCCS REMOTE ACTION WORKSHEET

FUNCTION _____

RACT

Remote Action - Define	**ract** [*device*][A] [*keypad*][BC] [*option*][D] [[*description*]]
Relay Set	**01** [*priority*] [*line*] [*panel*] [*relay*] [[*description*]]
Relay Reset	**02** [*priority*] [*line*] [*panel*] [*relay*] [[*description*]]
Activate Action	**03** [*action*] [[*description*]]
Restore Action	**04** [*action*] [[*description*]]
Activate Sequence	**05** [*sequence*] [[*description*]]
Cancel Sequence	**06** [*sequence*] [[*description*]]
Virtual LED Set	**07** [*priority*] [*device*] [*keypad*] [[*description*]]
Virtual LED Reset	**08** [*priority*] [*device*] [*keypad*] [[*description*]]

action = 1 to 9999	priority = 00 to 99
device = 1 to 99	relay = 1 to 99
keypad = 1 to 9999	sequence = 1 to 9999
option = 1 to 99	description = program comment

[A] FCCS device selection switch. Valid range 05 to 16
[B] Arbitrary ID # related to keypad entry & keypad label, i.e. 1 = 1st floor.
[C] 9999 = ALL devices.
[D] See Table 1 for switch/functions definitions and labels.

FCCA PROGRAMMING

FCCA CONFIGURATION

The FCCA appears to the network controller as an IRC panel with address [ll]41zz. These status indications have the same programming capabilities as a remote switch, i.e. they may be programmed to activate messages, LED's relays or actions.

FCCA status indication addresses are listed below. All FCCA changes of state are reported as supervisory open trouble conditions, in the following format:

[*ll*{00-07}][**41**][*zz*{01-96}]

where:

ll = Data line Number **For PCPU based systems & CCS-1 ONLY**
41 = Field panel address #41
zz = Zone number

4101 - Fire Acknowledge - handshake signal informing the network controller, i.e. CM1N, PCPU, RMDP-1N or CCS-1 the fire alarm relay ([*pp*][*ll*]4101) activation has been received at the FCCA.

4110 - Open in the supervised wiring from the FCCA channel 1 pre-amp output terminals TB1-5 and TB1-6 to the input terminals of the channel 1 power amplifier(s).

4111 - Open in the supervised wiring from the FCCA channel 2 pre-amp output terminals TB1-8 and TB1-9 to the input terminals of the channel 2 power amplifier(s).

4112 - Microphone failure or an open in the microphone cable.

4113 - FCCA Handset off hookswitch, open in supervised telephone riser 1 (TB2-1 & TB2-2) or riser 2 (TB2-4 & TB2-5), or broken cable in FCCA handset.

4114 - Open in the channel 1 Auxiliary supervisory circuit (TB1-14 & TB1-15). This circuit is typically used to report the status of the channel 1 RAMM module.

4115 - Open in the channel 2 Auxiliary supervisory circuit (TB1-16 & TB1-17). This circuit is typically used to report the status of the channel 2 RAMM module.

4118 - Tone 1 Select acknowledge - handshake signal informing the network controller the fire alarm relay ([pp][ll]4118) activation has been received at the FCCA.

4119 - Aux 1 Select acknowledge - handshake signal informing the network controller that the fire alarm relay ([pp][ll]4119) activation has been received at the FCCA.

4120 - Tone 2 Select acknowledge - handshake signal informing the network controller the fire alarm relay ([*pp*][*ll*]4120) activation has been received at the FCCA.

4121 - Aux 2 Select acknowledge - handshake signal informing the network controller the fire alarm relay ([*pp*][*ll*]4121) activation has been received at the FCCA.

4122 - Change of state on EXT IN terminals TB1-20 & TB1-21.

4123 - Generated when Zone 23 is enabled (SW1-5 ON) and channel 1 PHONE or channel 1 MIC switches is activated.

4124 - Generated when Zone 24 is enabled (SW2-5 ON) and channel 2 PHONE or channel 2 MIC switches is activated.

4197 - Communications failure between the FCCA and the network controller.

FCCA OUTPUT ADDRESSES

The FCCA output addresses activate various functions within the FCCA panel. These commands are generated by the network controller in response to system activity. FCCA command functions may be programmed the same as as any IRC system relay, using the following format:

[*pp*{00-99}][*ll*{00-07}][**41**][*zz*{01-96}]

where:

pp = Priority
ll = Data line Number **For PCPU based systems & CCS-1 ONLY**
41 = Field panel address #41
zz = Zone number

4101 - FIRE:
1. ACTIVITY relays energized.
2. FCCA audio system is activated per channel 1 and channel 2 mode switches.

4103 - START RELAY:
1. Activates the Start Relay, TB1-18 & TB1-19.

4106 - Phone call-in:
1. Phone call-in buzzer pulsates.

4109 - POWER/CHGR TBL:
1. Trouble buzzer sounds.

4115 - DISABLE FRONT PANEL SWITCHES:
1. Disables all FCCA front panel switches.

4116 - TERMINATE TONE SEQUENCE:
1. Starts final tone and terminates RAMM message when using the Boston code sequence (mode 1).

4117 - LAMP TEST:
1. LEDs in the front panel switches flash.

4118 - START TONE 1:
1. FCCA operates in the TONE mode using the Channel 1 pre-amp output.

4119 - START AUX 1:
1. FCCA operates in the AUX IN (TAPE) mode from the Channel 1 pre-amp output.

4120 - START TONE 2:
1. FCCA operates in the TONE mode from the Channel 2 pre-amp output.

4121 - START AUX 2:
1. FCCA operates in the AUX IN (TAPE) mode from the Channel 2 pre-amp output.

4122 - FIRE EXISTS:
1. Used by the system and automatically activated by any alarm when using the RMDP-1(N) or CM1(N). When using the CCS-1, address 4122 must be programmed to activated on any system alarm.

4123 - SPRINKLER SUPERVISORY EXISTS:
1. This output is used by the system and is automatically activated by any Sprinkler supervisory condition when using the RMDP-1(N) or CM1(N). When using the CCS-1, this relay must be activated by the user program upon any sprinkler supervisory activation.

4124 - TROUBLE EXISTS:
1. This output is used by the system and is automatically activated by any trouble condition when using the RMDP-1(N) or CM1(N). When using the CCS-1, this relay must be activated by the user program upon any trouble activation.

4197 - RESET:
1. Resets the FCCA.

PROGRAM EXAMPLES

FOR CCS-1 ONLY This programming is automatically generated for the IRC-3 Single-Line Network or Single-Enclosure Systems.

The following list shows the zones that must be programmed for proper operation of the FCCA. These zones must be programmed as remote switch zones.

The following FCCA initiating zones must be programmed:

[*ll*]4101 -- FIRE ACKNOWLEDGE RESET RELAY [*pp*][*ll*]4101

[*ll*]4105 -- TROUBLE ACKNOWLEDGE RESET RELAY [*pp*][*ll*]4105

[*ll*]4106 -- PHONE CALL-IN ACKNOWLEDGE RESET RELAY [*pp*][*ll*]4106

[*ll*]4108 -- SYSTEM RESET ACTION (9005) List all remote panel relay number 97

For each IRC zone types, specific actions must be programmed. The following is a list of the required program actions:

ZONE TYPE	ACTIVATE FCCA ADDRESS	FUNCTION
Fire Alarm	[*pp*][*ll*]4101	activates tone generators, activity relays, appropriate relays on Audio Distribution card
Phone call-in	[*pp*][*ll*]4106	activates call-in buzzer

FCCA TROUBLESHOOTING

PHONE TROUBLE (4113)

1. Master handset cord broken or defective.
2. Telephone riser number one or two open.
   The riser (originating at TB2 on the Audio Distribution card) must be terminated by the RSM or URSM, located at the last panel on the data line. If this line is open a trouble will be generated. The 10K EOL at the Riser supervisory module can be read from the FCCA panel with an Ohmmeter.

MICROPHONE TROUBLE (4112)

1. Microphone set or cord broken or defective.
2. Microphone Push-to-Talk switch is pressed without the microphone being selected by the FIRE AREA or OTHER AREA MIC switch.

AUX 1 TROUBLE (4114)

1. Open in supervisory circuit originating at terminals TB1-14 & 15 at the FCCA. 2.2 KΩ EOL resistor required to terminate this circuit.

AUX 2 TROUBLE (4115)

1. Open in supervisory circuit originating at terminals TB1-16 & 17 at the FCCA. 2.2 KΩ EOL resistor required to terminate this circuit.

PRE-AMPLIFIER 1 TROUBLE (4110)

1. Open in the supervised preamplifier output circuit that originates at terminals TB1-5 & 6, and terminates at the last Amplifier Terminal Panel or AA75 amplifier. This circuit is terminated by an EOL resistor, whose value (between 1.8 KΩ and 10 KΩ) is determined by the power amplifier load (see Table 1).

PRE-AMPLIFIER 2 TROUBLE (4111)

1. Open in the supervised preamplifier output circuit that originates at terminals TB1-8 & 9, and terminates at the last Amplifier Terminal Panel or AA75 amplifier. This circuit is terminated by an EOL resistor, whose value (between 1.8 KΩ and 10 KΩ) is determined by the power amplifier load (see Table 1).

DATA ACTIVITY LED EXTINGUISHED

1. Network Host CPU failure.
2. Open or shorted data line between the FCCA and Network Controller.
3. Defective communications circuitry at FCCA or Network Controller.

[FCCAPG00.DOC]

FCC Programming Templates

INTRODUCTION

Programming templates are actual sample programs in ASCII text which may be copied and modified to quickly and easily generate files for the DCPU and PCPU.

Sample files are just that, samples. They MUST be modified to match the specifics of the network being designed. All network options are included in the templates. Only the required options should be left in the template. The unused options MUST be deleted or "commented out", or compilation errors will result. All the parameters in the templates have "zero" values. These too must be modified to match the specifics of the system being programmed.

CREATING FILES USING TEMPLATES

1) Copy and rename the four files with the filename "TEMPLATE" into a new empty directory. It is suggested that the project name be used as the filename, and that the following filename extensions be used for consistency. Any filename and extension EXCEPT the filenames *BINARY.Pxx* and *BINARY.Dxx* are acceptable to the compiler.

   If the network requires multiple DCPUs, make two additional copies of the *jobname.DC1* and *jobname.DD1* files and change the filename extensions:

   jobname.DC2 (DCPU node 02 configuration database file)
   jobname.DD2 (DCPU node 02 message database file)
   jobname.DC3 (DCPU node 03 configuration database file)
   jobname.DD3 (DCPU node 03 message database file)

2) If the network contains an ACP or an FCCA, copy the ACP/FCCA zone response files (all files with filename extension NZF) and message files (all files with filename extension NMF) into the same directory as the template files. The ACP/FCCA files must be compiled along with the network configuration and message files. These file are to be copied whole, and do not require any modification. These files may be renamed if desired.

3) Edit the template files. Load a file into the word processor. The word processor must be set to the ASCII text or non-document mode. Any coded embedded in the text by a word processor will cause the file not to compile.

   The template files as copied list all network options. To select an option, simply erase the alternate options that are not required. All parameters in the template file have "zero" values. These must be changed to match the specifics of the system being configured. "Zero" values will not compile properly.

Comments may be added to the file by starting the comment with a "#" sign at the beginning of each comment line. Any information in the file started with or surrounded by "#" signs may be deleted at any time without harming the file.

The following files and templates are provided on the FCC Compiler Disk:

FCC Compiler Disk Index	
File Name	Description
COMPILER.EXE	The FCC Compiler program - The executable program used to compile and upload the FCC database files. **NOT A TEMPLATE FILE.**
README.FCC	How to use the FCC Template instructions. **NOT A TEMPLATE FILE.**
TEMPLATE.DC1	DCPU Database template - An editable DCPU configuration database file for DCPU node 01.
TEMPLATE.DD1	Message Database Template - An editable DCPU message database file for DCPU node 01.
TEMPLATE.PCF	PCPU Database Template - An editable PCPU configuration database file.
TEMPLATE.PDF	Zone Database File - An editable PCPU zone database file.
FCCAL00.NMF	ACP line 00 message database template - For DCPU.
FCCAL00.NZF	ACP line 00 zone database template - For PCPU.
FCCALO2.NMF	ACP line 02 message database template - For DCPU.
FCCAL02.NZF	ACP line 02 zone database template - For PCPU.
FCCAL04.NMF	ACP line 04 message database template - For DCPU.
FCCAL04.NZF	ACP line 04 zone database template - For PCPU.
FCCAL06.NMF	ACP line 06 message database template - For DCPU.
FCCAL06.NZF	ACP line 06 zone database template - For PCPU.

4) Exact copies of the template files and the "README" file follow:

[FCCTEMP.INS]

###README.FCC###

FAST TECHNICAL TRAINING

FCC PROGRAMMING FILE TEMPLATES

USE OF TEMPLATE FILES - The FCC Template files are designed to give the FCC programmer a file format that is acceptable to the FCC compiler. All system parameters and options have been included in the files so it may be necessary to remove information that is not used on a particular job. Programming notes and reference information are surrounded by or begun with the pound sign (#). Any information begun by or surrounded by the # sign may be erased at any time. Any notes that you may want to add to your files can be done by starting the note with a # sign (add a # sign on the beginning of each new line). All of the template entries have been entered with "0" values, the compiler will reject these entries as is. If you are not using the function, erase it!

When creating a file, first copy the template file and rename it. Replace the word template with the job name. The compiler will not reject any file extension you may use, but it is recommended that you use the following extensions for consistency.

FILE EXTENSION KEY

_____.PCF PCPU CONFIGURATION FILE

_____.PDF PCPU DATA BASE FILE (ZONE RESPONSES)

_____.DC1 DCPU (NODE 01) CONFIGURATION FILE

_____.DD1 DCPU (NODE 01) DATA BASE FILE (MESSAGE BASE)

THE FOLLOWING FILES MUST BE MADE BY COPYING _____.DC1 _____.DD1 AND RENAMING THE FILES WITH THE APPROPRIATE EXTENSION.

_____.DC2 DCPU (NODE 02) CONFIGURATION FILE

_____.DD2 DCPU (NODE 02) DATA BASE FILE (MESSAGE BASE)

_____.DC3 DCPU (NODE 03) CONFIGURATION FILE

_____.DD3 DCPU (NODE O3) DATA BASE FILE (MESSAGE BASE)

ACP FCCA ZONE RESPONSE AND MESSAGE FILES

_____.NZF FILE COMPILED WITH PCPU DATA AND CONFIGURATION FILES

_____.NMF FILE COMPILED WITH DCPU DATA AND CONFIGURATION FILES

FCCAL00.NZF FCCA/ACP ZONE RESPONSE FILE FOR DATA LINE 00

FCCAL00.NMF FCCA/ACP MESSAGE FILE FOR DATA LINE 00

FCCAL02.NZF FCCA/ACP ZONE RESPONSE FILE FOR DATA LINE 02

FCCAL02.NMF FCCA/ACP MESSAGE FILE FOR DATA LINE 02

FCCAL04.NZF FCCA/ACP ZONE RESPONSE FILE FOR DATA LINE 04

FCCAL04.NMF FCCA/ACP MESSAGE FILE FOR DATA LINE 04

FCCAL06.NZF FCCA/ACP ZONE RESPONSE FILE FOR DATA LINE 06

FCCAL06.NMF FCCA/ACP MESSAGE FILE FOR DATA LINE 06

###TEMPLATE.DC1###

dcpu database file

Job Name: TYPE OVER WITH JOB NAME
Date Started: 00/00/92
Date Last Edited: 00/00/92

##########
##
ERASE THE NODE NUMBERS NOT USED
##
##########

node number: 01 02 03

##
########################
##
COMMUNICATIONS CARD CONFIGURATIONS
##
ERASE ALL ENTRIES THAT ARE NOT BEING USED
##
##
IF YOU ARE NOT USING ALL COMMUNICATIONS PORTS, ERASE CARD ENTRIES
NOT USED.
##
##
########################

COMMUNICATIONS CARD: 1
Class: B
Baud Rate: 9600 4800 2400 1200
Card Type: RS-485 RS-232 FIBER OPTIC 20ma.LOOP

COMMUNICATIONS CARD: 2
Class: B
Baud Rate: 9600 4800 2400 1200
Card Type: RS-485 RS-232 FIBER OPTIC 20ma. LOOP

COMMUNICATIONS CARD: 3
Class: B
Baud Rate: 9600 4800 2400 1200
Card Type: RS-485 RS-232 FIBER OPTIC 20ma. LOOP

COMMUNICATIONS CARD: 4
Class: B
Baud Rate: 9600 4800 2400 1200
Card Type: RS-485 RS-232 FIBER OPTIC 20ma. LOOP

```
##########################################################
########################
##
##
##      ERASE PORTS THAT ARE NOT USED
##
##      ERASE ALL ENTRIES THAT ARE NOT BEING USED.
##
##
##        REMEMBER!!!! BOTH PORTS ON A SINGLE CARD WILL BE RUNNING AT
##                THE SAME  BAUD RATE.
##
##
##########################################################
########################

#CARD 1
        Communications Port: 00 Display Command Printer
        Communications Port: 01 Display Command Printer
#CARD 2
        Communications Port: 02 Display Command Printer
        Communications Port: 03 Display Command Printer
#CARD 3
        Communications Port: 04 Display Command Printer
        Communications Port: 05 Display Command Printer
#CARD 4
        Communications Port: 06 Display Command Printer
        Communications Port: 07 Display command Printer


##########################################################
##############                          #ENTER DISPLAY PATTERNS FROM A -
Z
##
##  erase the port entries not used in each pattern.
##  in this file are patterns A - L  if more patterns are required
##  block copy the existing blocks. delete what is not needed.
##
##########################################################
##############

Display Pattern: A
   Port 00 Enabled
   Port 01 Enabled
   Port 02 Enabled
   Port 03 Enabled
   Port 04 Enabled
   Port 05 Enabled
   Port 06 enabled
   Port 07 enabled
```

Display Pattern: B
Port 00 Enabled
Port 01 Enabled
Port 02 Enabled
Port 03 Enabled
Port 04 Enabled
Port 05 Enabled
Port 06 enabled
Port 07 enabled

Display Pattern: C
Port 00 Enabled
Port 01 enabled
Port 02 Enabled
Port 03 Enabled
Port 04 Enabled
Port 05 Enabled
Port 06 enabled
Port 07 enabled

Display Pattern: D
Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

Display Pattern: E
Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

Display Pattern: F
Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

Display Pattern: G
Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

Display Pattern: H
Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

Display Pattern: I
Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

Display Pattern: J
Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

Display Pattern: K
Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

Display Pattern: L

Port 00 Enabled
Port 01 enabled
Port 02 enabled
Port 03 enabled
Port 04 enabled
Port 05 enabled
Port 06 enabled
Port 07 enabled

###TEMPLATE.DD1###

message database file

```
##############
##
##      THE FOLLOWING MESSAGES ARE FOR COMMUNICATIONS PSEUDO POINTS
##
##############

Z 00 01 01 A "Polling CPU Fault"

Z 00 01 10 A "DCPU 1 high order network fault"
Z 00 01 11 A "DCPU 1 Comm line 00 fault"
Z 00 01 12 A "DCPU 1 Comm line 01 fault"
Z 00 01 13 A "DCPU 1 Comm line 02 fault"
Z 00 01 14 A "DCPU 1 Comm line 03 fault"
Z 00 01 15 A "DCPU 1 Comm line 04 fault"
Z 00 01 16 A "DCPU 1 Comm line 05 fault"
Z 00 01 17 A "DCPU 1 Comm line 06 fault"
Z 00 01 18 A "DCPU 1 Comm line 07 fault"

Z 00 02 10 A "DCPU 2 high order network fault"
Z 00 02 11 A "DCPU 2 Comm line 00 fault"
Z 00 02 12 A "DCPU 2 Comm line 01 fault"
Z 00 02 13 A "DCPU 2 Comm line 02 fault"
Z 00 02 14 A "DCPU 2 Comm line 03 fault"
Z 00 02 15 A "DCPU 2 Comm line 04 fault"
Z 00 02 16 A "DCPU 2 Comm line 05 fault"
Z 00 02 17 A "DCPU 2 Comm line 06 fault"
Z 00 02 18 A "DCPU 2 Comm line 07 fault"

Z 00 03 10 A "DCPU 3 high order network fault"
Z 00 03 11 A "DCPU 3 Comm line 00 fault"
Z 00 03 12 A "DCPU 3 Comm line 01 fault"
Z 00 03 13 A "DCPU 3 Comm line 02 fault"
Z 00 03 14 A "DCPU 3 Comm line 03 fault"
Z 00 03 15 A "DCPU 3 Comm line 04 fault"
Z 00 03 16 A "DCPU 3 Comm line 05 fault"
Z 00 03 17 A "DCPU 3 Comm line 06 fault"
Z 00 03 18 A "DCPU 3 Comm line 07 fault"
```

```
#########################################################
########################
##
##   ZONE MESSAGE FORMAT
##      ┌──────────────────────── TYPE CODE
##      │  ┌───────────────────── LINE
##      │  │  ┌────────────────── PANEL
##      │  │  │  ┌─────────────── ZONE
##      │  │  │  │  ┌──────────── DISPLAY PATTERN (A - Z)
##      │  │  │  │  │   ┌──────── MESSAGE
##      │  │  │  │  │   │
##      Z 00 00 00 A " MESSAGE UP TO 160 CHARACTERS"
##
##
##    ACTION MESSAGE FORMAT
##
##      ┌──────────────────────── TYPE CODE
##      │  ┌───────────────────── ACTION NUMBER
##      │  │    ┌──────────────── DISPLAY PATTERN (A - Z)
##      │  │    │   ┌──────────── MESSAGE
##      │  │    │   │
##      A 0000 A " MESSAGE UP TO 160 CHARACTERS"
##
##
##    ALL MESSAGE INFORMATION MUST BE CONTAINED WITHIN QUOTATION
MARKS "  "
##
#########################################################
########################


######### SAMPLE MESSAGES ##########


#--------------- Zone messages for line 00 panels ---------------

Z 00 05 01 A "Smoke Detector, Floor 12 Southwest Hallway."
Z 00 05 02 A "Smoke Detector, Floor 12 Northeast Hallway."
Z 00 05 03 A "Smoke Detector, Floor 14 Southeast Hallway."
Z 00 05 04 A "Smoke Detector, Floor 14 Northeast Hallway."
Z 00 05 05 A "Smoke Detector, Floor 15 Southeast Hallway."
Z 00 05 06 A "Smoke Detector, Floor 15 Northeast Hallway."
Z 00 05 07 A "Tamper switch, Floor 12 South Electrical Closet"
Z 00 05 08 A "Tamper switch, Floor 14 South Electrical Closet"

Z 00 05 97 A "Line 00, panel 05, zone 97 ch1 communications fault"
Z 00 05 98 A "Line 00, panel 05, zone 98 ch2 communications fault"
Z 00 05 99 A "Line 00, panel 05, zone 99 power supply or internal fault"
```

Z 00 06 01 A " Strobes, Floor 12."
Z 00 06 02 A " Strobes, Floor 14."
Z 00 06 03 A " Speakers, Floor 15."
Z 00 06 04 A " Speakers, Floor 16."

Z 00 06 97 A "Line 00, panel 06, zone 97 ch1 communications fault"
Z 00 06 98 A "Line 00, panel 06, zone 98 ch2 communications fault"
Z 00 06 99 A "Line 00, panel 06, zone 99 power supply or internal fault"

Z 00 07 01 A "Smoke Detector, Floor 34 Southwest Hallway."
Z 00 07 02 A "Smoke Detector, Floor 34 Northwest Hallway."
Z 00 07 03 A "Smoke Detector, Floor 35 Southwest Hallway."
Z 00 07 04 A "Smoke Detector, Floor 35 Northwest Hallway."
Z 00 07 05 A "Smoke Detector, Floor 36 Southwest Hallway."
Z 00 07 06 A "Smoke Detector, Floor 36 Northwest Hallway."
Z 00 07 07 A "Smoke Detector, Floor 37 Southwest Hallway."
Z 00 07 08 A "Smoke Detector, Floor 37 Northwest Hallway."

Z 00 07 97 A "Line 00, panel 07, zone 97 ch1 communications fault"
Z 00 07 98 A "Line 00, panel 07, zone 98 ch2 communications fault"
Z 00 07 99 A "Line 00, panel 07, zone 99 power supply or internal fault"

A 9002 A "------- System reset in progress ----------"
A 9003 A "General drill action which turns on all audible circuits on line 00"
A 9004 A "Alarm Silence action which turns off all audibles on line 00"
A 9005 A "General Action message for ACTION 9005"

####TEMPLATE.PCF###

pcpu database file

Date Started:00/00/92
Date Last Edited: 00/00/92
TYPE OVER THIS LINE WITH JOB NAME

##
#####
##
IF THIS JOB IS INSTALLED IN EUROPE ERASE AMERICAN
##
WALK TEST IS SET FOR AUDIBLE, ERASE AUDIBLE FOR A SILENT TEST
##
IF YOU ARE NOT USING SANCOMS ERASE (SANCOM: Enabled)
##
IF START ACTION OR START SEQUENCE ARE NOT USED, ERASE LINE
##
ALTERNATE SENSITIVITY IS SET TO START AT 6:00 PM AND END AT 6:00 AM
TO CHANGE OVER WRITE THE TIME ENTRIES
##
##
#####

Installation Site: AMERICAN EUROPEAN
Start Action:0000
Start Sequence:0000
Walk Test: Audible Silent
Common Test Beep: Enabled
SANCOM: Enabled

Alternate Sensitivity start time: 18:00:00
Alternate Sensitivity end time: 06:00:00

##
######################
##
COMMUNICATIONS CARD CONFIGURATIONS
##
ERASE ALL ENTRIES NOT BEING USED
##
IF YOU ARE NOT USING ALL COMMUNICATIONS PORTS, ERASE CARD ENTRIES
NOT USED.
##
##
##
######################

COMMUNICATIONS CARD: 1
Communications Class: B A
Baud Rate: 9600 4800 2400 1200
Card Type: RS-485 RS-232 FIBER OPTIC 20 ma.LOOP

COMMUNICATIONS CARD: 2
Communications Class: B A
Baud Rate: 9600 4800 2400 1200
Card Type: RS-485 RS-232 FIBER OPTIC 20 ma.LOOP

COMMUNICATIONS CARD: 3
Communications Class: B A
Baud Rate: 9600 4800 2400 1200
Card Type: RS-485 RS-232 FIBER OPTIC 20 ma.LOOP

COMMUNICATIONS CARD: 4
Communications Class: B A
Baud Rate: 9600 4800 2400 1200
Card Type: RS-485 RS-232 FIBER OPTIC 20 ma.LOOP

```
##########################################################################
####################
##
##                    ERASE DISPLAY NUMBERS NOT USED
##
##########################################################################
####################
```

Display CPU 01: Enabled

Display CPU 02: Enabled

Display CPU 03: Enabled

```
##########################################################################
##############
##                NOTES:
##
##  PANEL TYPE:   IRC-3 = CM2N
##              AUDIO PANEL = ACP or FCCA
##              REMOTE ANNUNCIATOR = RASP or SAN WITHOUT SANCOM
##              SAN ANNUNCIATOR = SAN WITH A SANCOM
##              IRC-1
##  ------------------------------------------------------------
##    POLL BIT ENABLE / ENABLE  adds or removes address from
##                          polling list
##
##########################################################################
##############
```

##_____THE FOLLOWING ARE SAMPLE ENTRIES_____

#----------Panels defined for data line 00 ----------

CM2N with two zas cards

PANEL: 00 05 # start panel address
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 00 06
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 00 07
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 00 08
Panel Type: IRC-3
Poll Bit: Enabled

CM2N with Traditional cards

PANEL: 00 09
Panel Type: IRC-3
Poll Bit: Enabled

San Annunciator with SANCOM

PANEL: 00 10
Panel Type: San Annunciator
Poll Bit: Enabled

Remote Annunciator (san) without SANCOM

PANEL: 00 11
Panel Type: Remote Annunciator
Poll Bit: Enabled

PANEL: 00 41
Panel Type: Audio Panel
Poll Bit: Enabled

---------- Panels Defined For data line 02, 01 thru 61 ----------

CM2N with two zas cards

PANEL: 02 05
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 02 06
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 02 07
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 02 08
Panel Type: IRC-3
Poll Bit: Enabled

CM2N with Traditional cards

PANEL: 02 09
Panel Type: IRC-3
Poll Bit: Enabled

San Annunciator with SANCOM

PANEL: 02 10
Panel Type: San Annunciator
Poll Bit: Enabled

San Annunciator without SANCOM

PANEL: 02 11
Panel Type: Remote Annunciator
Poll Bit: Enabled

PANEL: 02 41
Panel Type: Audio Panel
Poll Bit: Enabled

---------- Panels defined for data line 04 ----------

CM2N with two zas cards

PANEL: 04 05
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 04 06
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 04 07
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 04 08
Panel Type: IRC-3
Poll Bit: Enabled

CM2N with Traditional cards

PANEL: 04 09
Panel Type: IRC-3
Poll Bit: Enabled

San Annunciator with SANCOM

PANEL: 04 10
Panel Type: San Annunciator
Poll Bit: Enabled

San Annunciator without SANCOM

PANEL: 04 11
Panel Type: Remote Annunciator
Poll Bit: Enabled

PANEL: 04 41
Panel Type: Audio Panel
Poll Bit: Enabled

---------- Panels defined for data line 06 ----------

CM2N with two zas cards

PANEL: 06 05
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 06 06
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 06 07
Panel Type: IRC-3
Poll Bit: Enabled

PANEL: 06 08
Panel Type: IRC-3
Poll Bit: Enabled

CM2N with Traditional cards

PANEL: 06 09
Panel Type: IRC-3
Poll Bit: Enabled

San Annunciator with SANCOM

PANEL: 06 10
Panel Type: San Annunciator
Poll Bit: Enabled

San Annunciator without SANCOM

PANEL: 06 11
Panel Type: Remote Annunciator
Poll Bit: Enabled

PANEL: 06 41
Panel Type: Audio Panel
Poll Bit: Enabled

```
###TEMPLATE.PDF###

zone Database file

#############################################################
##############
##        this information may be erased upon completion of file
##
## FORMAT FOR INPUT ZONE ENTRY
##
##    ZONE TYPE          ALA = ALARM
##                   SUP = SUPERVISORY ZONE
##                   SEC = SECURITY ZONE
##                   STAT = STATUS ZONE
##                   REM = REMOTE SWITCH ZONE
##
##
##                                   ZONE TYPE
##                                 LINE
##                                PANEL
##                               ZONE
##                              DEVICE TYPE  (see data base refer.)
##                            DESCRIPTION
##          ALA 00 00 00 00  alarm zone
##
##
##    RESPONSE ENTRY
##
##                                   OUTPUT FUNCTION *
##                                 PRIORITY
##                                LINE
##                               PANEL
##                              ZONE
##                            DESCRIPTION
##           00 00 00 00 00  alarm zone
##
##     FUNCTION RESPONSE ENTRY
##
##                                   OUTPUT FUNCTION *
##
##                              FUNCTION NUMBER
##
##                           DESCRIPTION
##
##          00 0000   Action name
##
##
##  * FOR OUTPUT FUNCTION NUMBERS SEE FOLLOWING ZONE LISTING.
##
#############################################################
#######################
#
```

```
#          *  ZONE OUTPUT FUNCTION TABLES
#
#  ALA 00 00 00 00 alarm zone
#      02 00 00 00 00 alarm set
#      03 00 00 00 00 trouble set
#      04 00 00 00 00 alarm reset
#      05 00 00 03 03 trouble reset
#      06 0000 alarm action
#      07 5000 trouble action
#      08 6000 test alarm action
#      09 7000 test trouble action
#
#
#  SUP 00 00 00 00 Supervisory zone
#      02 00 00 00 00 supv open set
#      03 00 00 00 00 supv open reset
#      04 0000 supv open action
#      05 00 00 00 00 supv short set
#      06 00 00 00 00 supv short reset
#      07 0000 supv short action
#      08 0000 patrol number
#      09 0000 supv open test action
#      10 0000 supv short test action
#
#
#  STAT 00 00 00 00 Status Zone
#      02 00 00 00 00 open set
#      03 00 00 00 00 open reset
#      04 0000 open action
#      05 00 00 00 00 short set
#      06 00 00 00 00 short reset
#      07 0000 short action
#      08 0000 patrol number
#      11 0000 status open test action
#      12 0000 status short test action
#
#
#  SEC 00 00 00 00 Security Zone
#      02 0000 patrol number
#      03 00 00 00 00 security set
#      04 00 00 00 00 security reset
#      05 0000 security action
#      06 0000 security open test action
#      07 0000 security short test action
#
#
#  REM 00 00 00 00 Remote Switch Zone
#      02 00 00 00 00 switch output set
#      03 00 00 00 00 switch output reset
#      04 0000 switch action
#      05 0000 patrol number
#     06 0000 switch test action
```

```
#
#
##########################################################
###################
##
##        this information may be erased upon completion of file
##
##    FUNCTION TYPE      ACT = ACTION
##                       LOG = LOGIC FUNCTION (" AND"  STATEMENT )
##                       MAT = MATRIX
##                       RACT = REMOTE ACTION
##                       SEQ = SEQUENCE
##                       STLIST = STATUS LIST
##                       TIME = TIME CONTROL
##
##
##
##      SEE ABOVE FOR ENTRY FORMAT
##
##
##########################################################
###################
#
#            * FUNCTION TABLES
#
#  ACT 0000 action description
#      01 00 00 00 00 output set
#      02 00 00 00 00 output reset
#      03 0000 activate action
#      04 0000 restore action
#      05 0000 patrol number
#      06 00 0000 store patrol pattern
#      07 00 00 00 enable input
#      08 00 00 00 disable input
#      09 00 00 00 enable input message
#      10 00 00 00 disable input message
#      11 0000 enable action
#      12 0000 disable action
#      13 0000 enable time control
#      14 0000 disable time control
#      15 0000 activate sequence
#      16 0000 cancel sequence
#      17 0000 disable sequence
#      18 0000 enable sequence
#
#
#
#  LOG 0000 0000 and statement
#      01 00 00 00 AND alarm input
#      02 00 00 00 AND supv open input
#      03 00 00 00 AND supv short input
#      04 00 00 00 AND security input
```

```
#
########################################################
#########
##
##             ┌──────────FUNCTION
##   SEQUENCE  │  │  ┌──────TIME DELAY IN SECONDS
##             │  │  ┌──ACTION NUMBER
##             │  │  │
##             01 00 0000  DESCRIPTION
##
########################################################
########
#
#  SEQ 0000 sequence
#     01 00 0000 delay and action
#
########################################################
########################
##
##    TIME CONTROL  FORMAT
##
##
##           ┌──────── ACTION TO BE ACTIVATED
##           │      ┌────── MONTH TO BE ACTIVATED IN (1-12)
##           │      │      ┌───── DAY OF MONTH TO BE ACTIVATED (1-31)
##           │      │      │   ┌─ DAY OF THE WEEK TO BE ACTIVATED (1-7, 1 = SUNDAY)
##           │      │      │   │          ┌ HOUR OF THE DAY (0 - 23)
##           │      │      │   │          │      ┌ MINUTE (0-59)
##           │      │      │   │          │      │
##  TIME (control) (month) (day) (day of week) (hour) (minute) (description)
##
##


#------ SYSTEM ACTIONS TO BE FILLED IN (or erase if not used)----------------


     ACT 9003 DRILL ALL CALL
          01 00 00 00 00 set output

     ACT 9004 ALARM SILENCE
          02 00 00 00 00 reset output

     ACT 9007 DISABLE MESSAGE IN ALARM
          10 00 00 00 disable input message
```

###FCCAL00.NMF###

message database file
Messages for an ACP defined on dataline 00.

Z 00 41 09 A "City Box Fault."

Z 00 41 10 A "Channel 1 Preamp fault."

Z 00 41 11 A "Channel 2 Preamp fault."

Z 00 41 12 A "Paging Microphone fault."

Z 00 41 13 A "Telephone riser/ Handset fault."

Z 00 41 14 A "Amplifier/ RAMM fault, channel 1."

Z 00 41 15 A "Amplifier/ RAMM fault, channel 2."

Z 00 41 16 A "City Box Disable."

Z 00 41 22 A "External Trouble Input."

Z 00 41 23 A "Channel 0 Page Active."

Z 00 41 24 A "Channel 1 Page Active."

Z 00 41 97 A "Primary Channel Communications Fault."

Z 00 41 99 A "Line 00, ACP 41, zone 99 internal fault."

###FCCAL00.NZF###

zone Database file

Zone response file for Audio Control Panel defined on dataline 00.

SUP 00 41 01 10 Fire Acknowledge
  02 00 00 41 01 reset relay

SUP 00 41 04 10 Terminate Tape

SUP 00 41 05 10 Trouble Acknowledge
  02 00 00 41 05 reset relay

SUP 00 41 06 10 Phone Call in acknowledge
  02 00 00 41 06 reset relay

SUP 00 41 07 10 All Call

SUP 00 41 08 10 System Reset

SUP 00 41 09 10 City Box Trouble

SUP 00 41 10 10 Channel 0 Preamp Trouble

SUP 00 41 11 10 Channel 1 Preamp Trouble

SUP 00 41 12 10 Microphone Trouble

SUP 00 41 13 10 Phone Trouble

SUP 00 41 14 10 Amplifier 0 Supervision

SUP 00 41 15 10 Amplifier 1 Supervision

Sup 00 41 16 10 City Box Disabled

SUP 00 41 17 10 Lamp Test

SUP 00 41 18 10 Tone 0 select acknowledge

SUP 00 41 19 10 Auxiliary 1 Select Acknowledge

SUP 00 41 20 10 Tone 2 Select Acknowledge

SUP 00 41 21 10 Auxiliary 2 Select Acknowledge

SUP 00 41 22 10 External trouble input

SUP 00 41 23 10 Channel 0 Page Active

SUP 00 41 24 10 Channel 1 Page Active

###FCCAL02.NMF###

message database file
Messages for an ACP defined on dataline 02.

Z 02 41 09 A "City Box Fault."

Z 02 41 10 A "Channel 1 Preamp fault."

Z 02 41 11 A "Channel 2 Preamp fault."

Z 02 41 12 A "Paging Microphone fault."

Z 02 41 13 A "Telephone riser/ Handset fault."

Z 02 41 14 A "Amplifier/ RAMM fault, channel 1."

Z 02 41 15 A "Amplifier/ RAMM fault, channel 2."

Z 02 41 16 A "City Box Disable."

Z 02 41 22 A "External Trouble Input."

Z 02 41 23 A "Channel 0 Page Active."

Z 02 41 24 A "Channel 1 Page Active."

Z 02 41 97 A "Primary Channel Communications Fault."

Z 02 41 99 A "Line 00, ACP 41, zone 99 internal fault."

###FCCAL02.NZF###

zone Database file

Zone response file for Audio Control Panel defined on dataline 02.

SUP 02 41 01 10 Fire Acknowledge
  02 00 02 41 01 reset relay

SUP 02 41 04 10 Terminate Tape

SUP 02 41 05 10 Trouble Acknowlege
  02 00 02 41 05 reset relay

SUP 02 41 06 10 Phone Call in acknowledge
  02 00 02 41 06 reset relay

SUP 02 41 07 10 All Call

SUP 02 41 08 10 System Reset

SUP 02 41 09 10 City Box Trouble

SUP 02 41 10 10 Channel 0 Preamp Trouble

SUP 02 41 11 10 Channel 1 Preamp Trouble

SUP 02 41 12 10 Microphone Trouble

SUP 02 41 13 10 Phone Trouble

SUP 02 41 14 10 Amplifier 0 Supervision

SUP 02 41 15 10 Amplifier 1 Supervision

Sup 02 41 16 10 City Box Disabled

SUP 02 41 17 10 Lamp Test

SUP 02 41 18 10 Tone 0 select acknowledge

SUP 02 41 19 10 Auxiliary 1 Select Acknowledge

SUP 02 41 20 10 Tone 2 Select Acknowledge

SUP 02 41 21 10 Auxiliary 2 Select Acknowledge

SUP 02 41 22 10 External trouble input

SUP 02 41 23 10 Channel 0 Page Active

SUP 02 41 24 10 Channel 1 Page Active

###FCCAL04.NMF###

message database file
Messages for an ACP defined on dataline 04.

Z 04 41 09 A "City Box Fault."

Z 04 41 10 A "Channel 1 Preamp fault."

Z 04 41 11 A "Channel 2 Preamp fault."

Z 04 41 12 A "Paging Microphone fault."

Z 04 41 13 A "Telephone riser/ Handset fault."

Z 04 41 14 A "Amplifier/ RAMM fault, channel 1."

Z 04 41 15 A "Amplifier/ RAMM fault, channel 2."

Z 04 41 16 A "City Box Disable."

Z 04 41 22 A "External Trouble Input."

Z 04 41 23 A "Channel 0 Page Active."

Z 04 41 24 A "Channel 1 Page Active."

Z 04 41 97 A "Primary Channel Communications Fault."

Z 04 41 99 A "Line 00, ACP 41, zone 99 internal fault."

###FCCAL04.NZF###

zone Database file

Zone response file for Audio Control Panel defined on dataline 04.

SUP 04 41 01 10 Fire Acknowledge
  02 00 04 41 01 reset relay

SUP 04 41 04 10 Terminate Tape

SUP 04 41 05 10 Trouble Acknowlege
  02 00 04 41 05 reset relay

SUP 04 41 06 10 Phone Call in acknowledge
  02 00 04 41 06 reset relay

SUP 04 41 07 10 All Call

SUP 04 41 08 10 System Reset

SUP 04 41 09 10 City Box Trouble

SUP 04 41 10 10 Channel 0 Preamp Trouble

SUP 04 41 11 10 Channel 1 Preamp Trouble

SUP 04 41 12 10 Microphone Trouble

SUP 04 41 13 10 Phone Trouble

SUP 04 41 14 10 Amplifier 0 Supervision

SUP 04 41 15 10 Amplifier 1 Supervision

Sup 04 41 16 10 City Box Disabled

SUP 04 41 17 10 Lamp Test

SUP 04 41 18 10 Tone 0 select acknowledge

SUP 04 41 19 10 Auxiliary 1 Select Acknowledge

SUP 04 41 20 10 Tone 2 Select Acknowledge

SUP 04 41 21 10 Auxiliary 2 Select Acknowledge

SUP 04 41 22 10 External trouble input

SUP 04 41 23 10 Channel 0 Page Active

SUP 04 41 24 10 Channel 1 Page Active

####FCCAL06.NMF###

message database file
Messages for an ACP defined on dataline 06.

Z 06 41 09 A "City Box Fault."

Z 06 41 10 A "Channel 1 Preamp fault."

Z 06 41 11 A "Channel 2 Preamp fault."

Z 06 41 12 A "Paging Microphone fault."

Z 06 41 13 A "Telephone riser/ Handset fault."

Z 06 41 14 A "Amplifier/ RAMM fault, channel 1."

Z 06 41 15 A "Amplifier/ RAMM fault, channel 2."

Z 06 41 16 A "City Box Disable."

Z 06 41 22 A "External Trouble Input."

Z 06 41 23 A "Channel 0 Page Active."

Z 06 41 24 A "Channel 1 Page Active."

Z 06 41 97 A "Primary Channel Communications Fault."

Z 06 41 99 A "Line 00, ACP 41, zone 99 internal fault."

###FCCAL06.NZF###

zone Database file

Zone response file for Audio Control Panel defined on dataline 06.

SUP 06 41 01 10 Fire Acknowledge
  02 00 06 41 01 reset relay

SUP 06 41 04 10 Terminate Tape

SUP 06 41 05 10 Trouble Acknowlege
  02 00 06 41 05 reset relay

SUP 06 41 06 10 Phone Call in acknowledge
  02 00 06 41 06 reset relay

SUP 06 41 07 10 All Call

SUP 06 41 08 10 System Reset

SUP 06 41 09 10 City Box Trouble

SUP 06 41 10 10 Channel 0 Preamp Trouble

SUP 06 41 11 10 Channel 1 Preamp Trouble

SUP 06 41 12 10 Microphone Trouble

SUP 06 41 13 10 Phone Trouble

SUP 06 41 14 10 Amplifier 0 Supervision

SUP 06 41 15 10 Amplifier 1 Supervision

Sup 06 41 16 10 City Box Disabled

SUP 06 41 17 10 Lamp Test

SUP 06 41 18 10 Tone 0 select acknowledge

SUP 06 41 19 10 Auxiliary 1 Select Acknowledge

SUP 06 41 20 10 Tone 2 Select Acknowledge

SUP 06 41 21 10 Auxiliary 2 Select Acknowledge

SUP 06 41 22 10 External trouble input

SUP 06 41 23 10 Channel 0 Page Active

SUP 06 41 24 10 Channel 1 Page Active

FAST FCC DCPU & PCPU COMPILER

INSTALLATION

Note: due to the size and complexity of the FCC compiler, a hard disk of at least 10 Mb capacity is required to operate this program.

1. Turn on the PC and get into the DOS environment,

2. At the C:> prompt, type in: **MD FCC**, (generates sub directory for the compiler).

3. At the C:> prompt, type in **CD\FCC**.

4. Insert the FAST, Inc. FCC Compiler disk into drive A:

5. At the C:> prompt, type in **COPY A:*.***

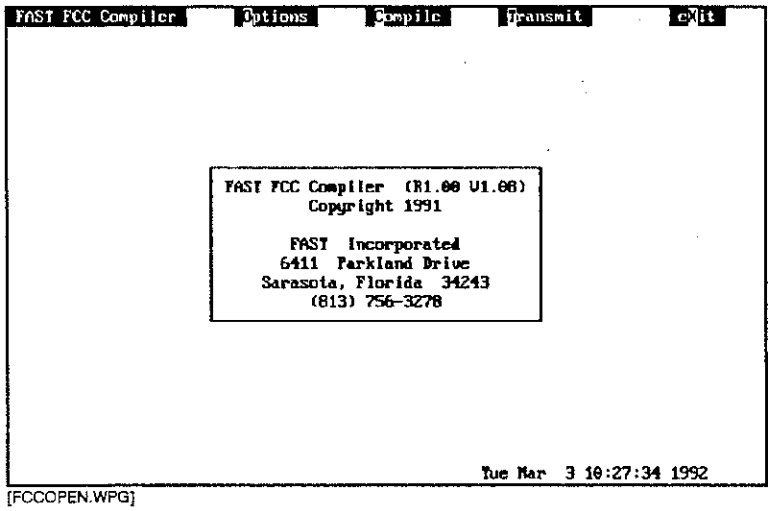
To start the FCC compiler:

1. At the C:> prompt, type in **CD\FCC**.

2. At the C:\FCC> prompt, type in **COMPILER**.

   To use the monochrome display mode, type in **COMPILER -m**.

The FCC compiler opening screen appear on the monitor as indicated below:



[FCCOPEN.WPG]

OPERATION

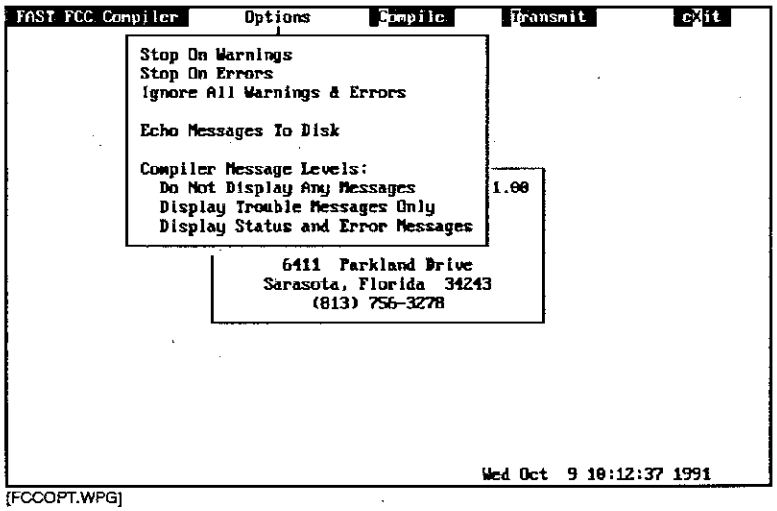
The FCC compiler supports mouse operation, or selections may be made by entering the highlighted key of the desired selection. The control arrows are used to move the highlighted cursor. The ENTER key is used to tag individual files. You may exit from any menu by hitting the ESC key.

WARNING: The FCC Compiler program must be running before connecting the up load cable between the PC and a DCPU or PCPU.

Failure to observe this procedure will cause a system failure.

OPTIONS SCREEN

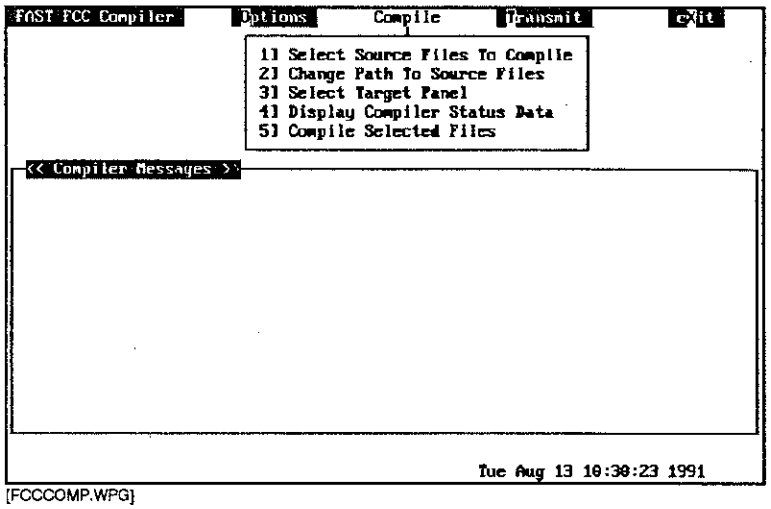
The compiler options screen, illustrated below, provides the opportunity for the user to stop the compiler when a warning is generated or an error is detected, set compiler message level, or send the compiler messages to a disk file. These are set to the personal preference of the programmer.



[FCCOPT.WPG]

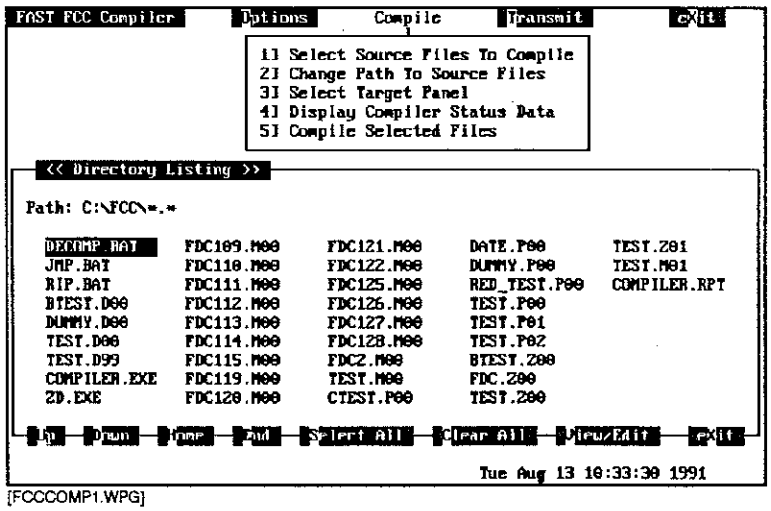
COMPILE SCREEN

When the compile screen is selected, compile option menu appears:



[FCCCOMP.WPG]

Select source file(s) to compile menu:



[FCCCOMP1.WPG]

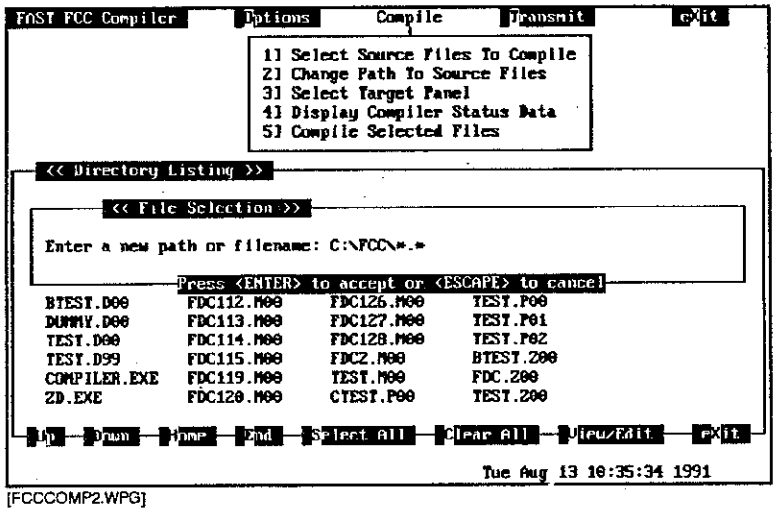
- The available source files for compilation are shown, as is the pathname.

- A mouse, the control arrows, or the UP, DOWN, HOME, and END functions may be used to move the cursor around the file list.

- To tag a file for compilation, simply hit the ENTER key, and a tag appears to the left of the highlighted file name. To tag or untag *all* files in the directory, use the SELECT ALL or CLEAR ALL functions.

- To view and/or edit a file, use the VIEW/EDIT function.

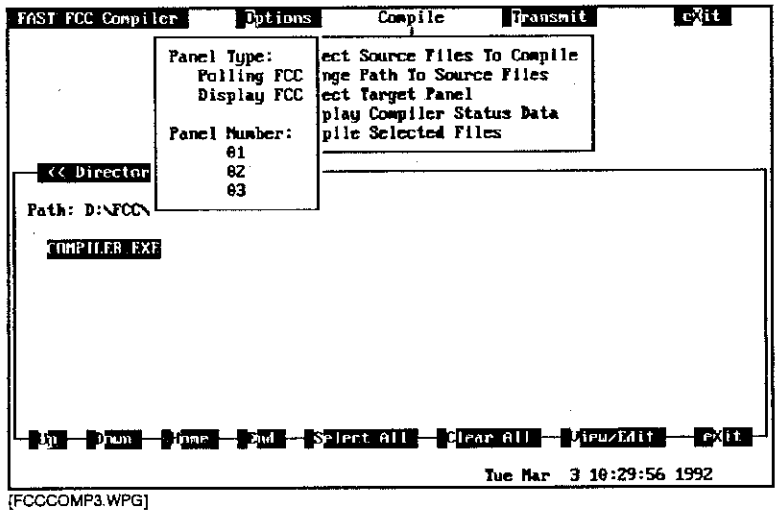
To change the path name to the source files, select menu item #2. The Screen shows:



[FCCCOMP2.WPG]

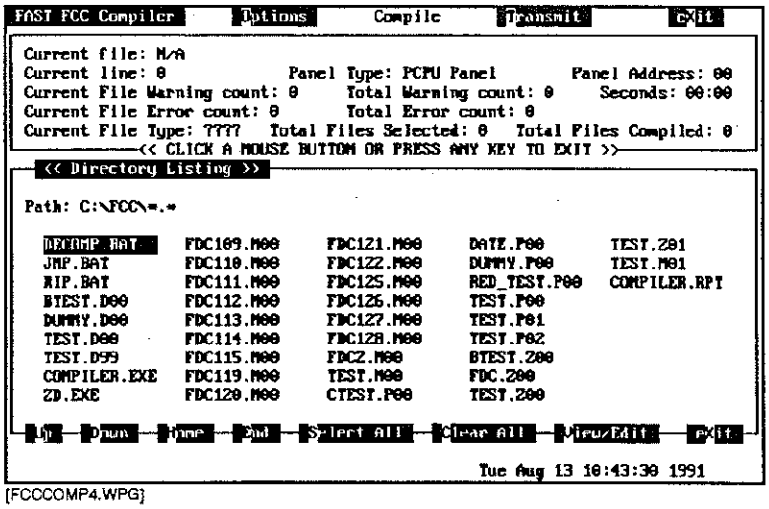
- Enter the new path name and hit ENTER.

To select the target (destination) panel type and address, compile menu item 3 is selected, as shown below:



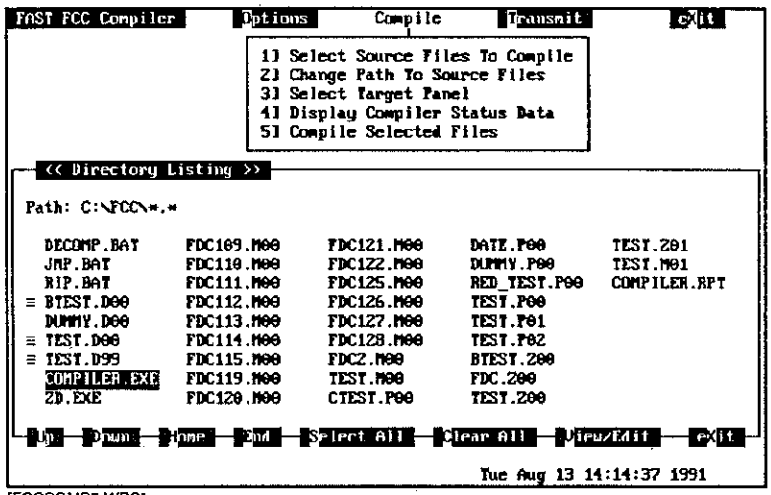
[FCCCOMP3.WPG]

Compiler status is revealed using menu item #4, shown below:



[FCCCOMP4.WPG]

To compile a file or files, select compile menu item #5, as shown below:

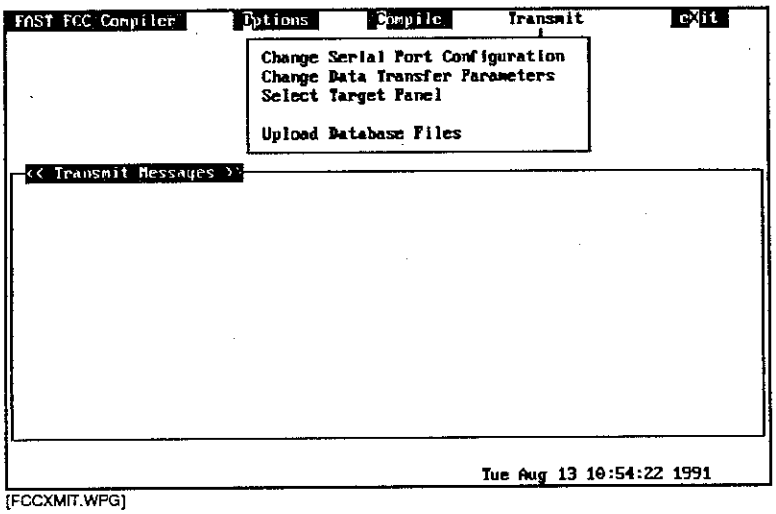


[FCCCOMP5.WPG]

- Notice the tags to the left of filenames *BTEST.D00, TEST.D00* and *TEST.D99.*

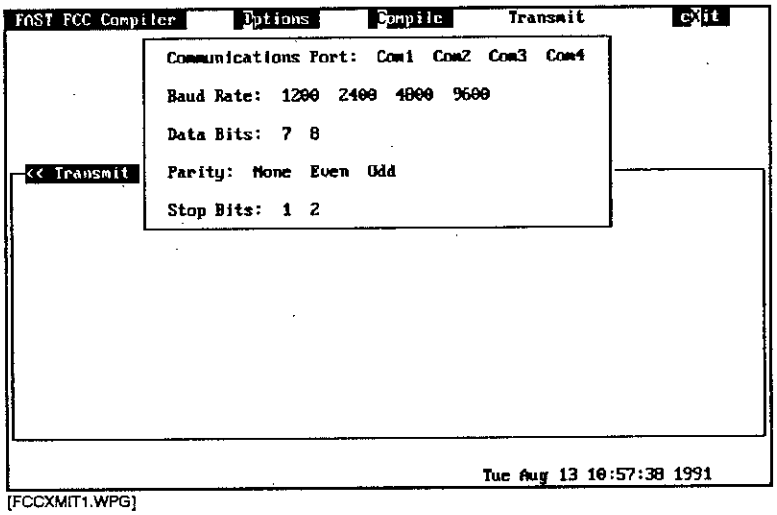
Compiled database files are named *BINARY.Pxx* for PCPU files and *BINARY.Dxx* for DCPU files.

In order to transmit these files to respective panels in the field, call up the transmit menu. Appendix A at the end of this document contains the up load cable wiring information.



[FCCXMIT.WPG]

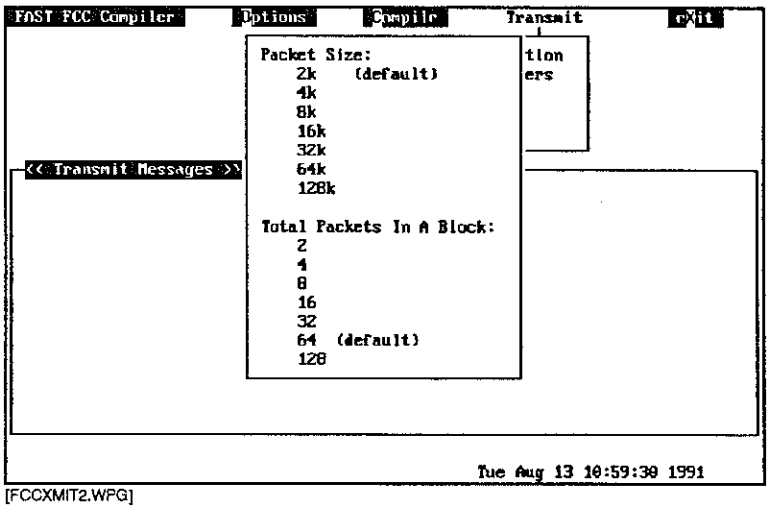
Transmit menu option #1, which appears below, is used to configure the serial ports on your PC.



[FCCXMIT1.WPG]

The default FCC settings are: `Com1, 2400, 8, EVEN, 1`

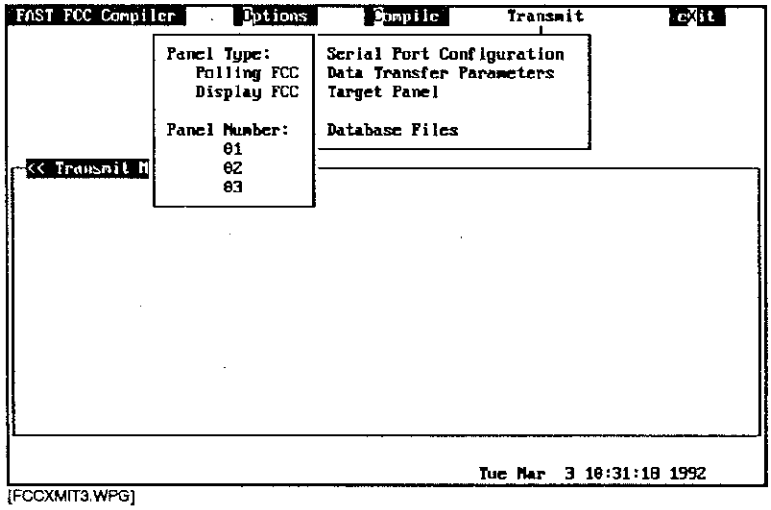
The change data menu below, is used to change the format of the transmitted data.



[FCCXMIT2.WPG]

The FCC default settings are: 2K, 64

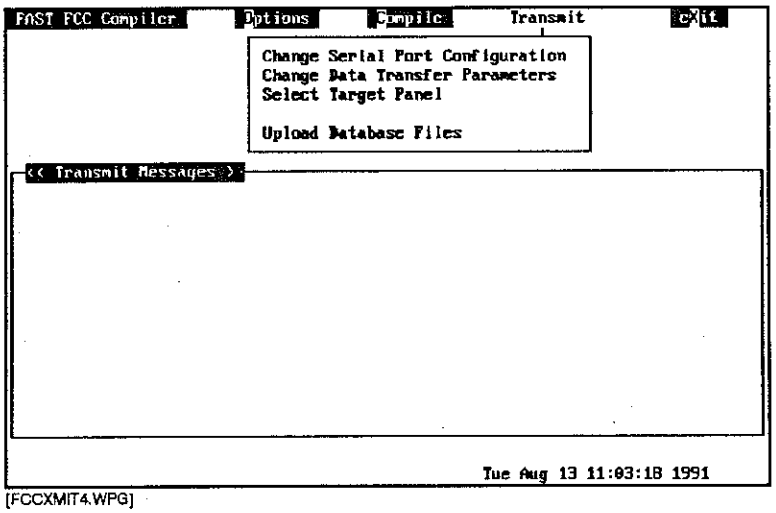
To select the destination of the transmitted data files, use transmit menu #3:



[FCCXMIT3.WPG]

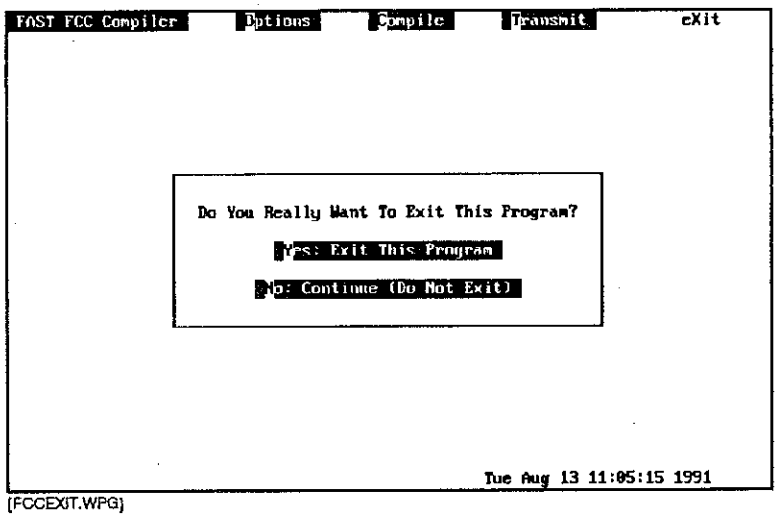
- The respective compiled *BINARY* files are automatically selected, once the destination is entered.

Here is the upload transmit menu, selection #4



[FCCXMIT4.WPG]

To exit the compiler, select the exit menu. which appears below:



[FCCEXIT.WPG]

Enter yes to exit the compiler.

WARNING: A problem exists which will not prevent compilation of the file.
ERROR: A problem exists which will prevent compilation of the file.

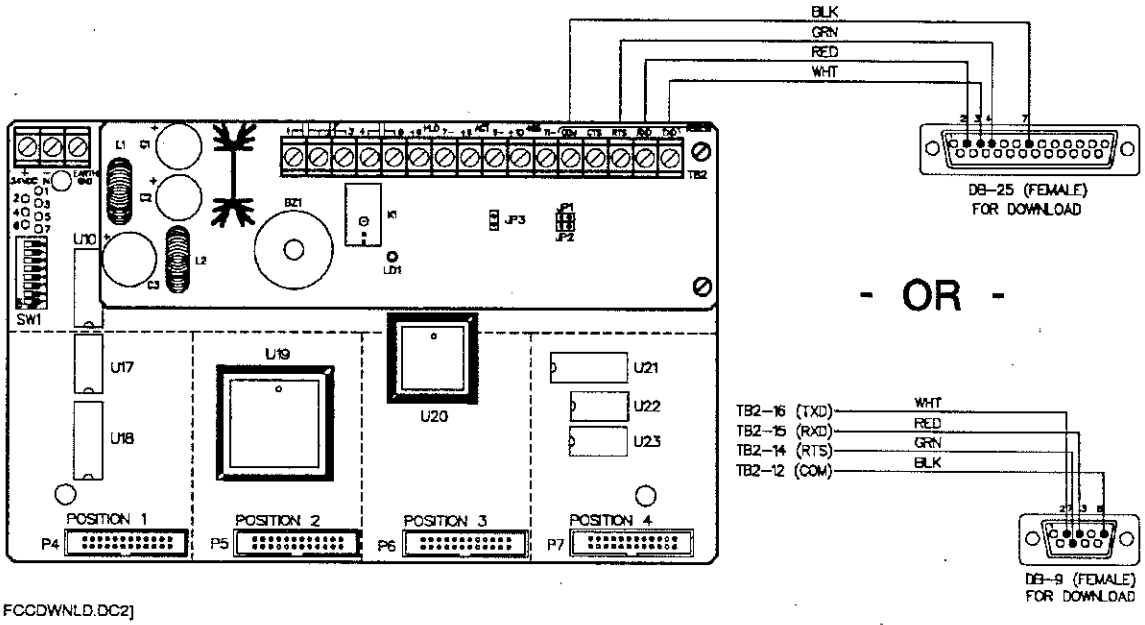
FCC COMPILER WARNING & ERROR MESSAGES		
MESSAGE #	MESSAGE	POSSIBLE CAUSE
E	`The file list is empty, too short, or dosen't contain enough files which are of the correct type.`	No files tagged Incorrect file type tagged insufficient data (quantity of files tagged)
E	`Error found of unknown type`	A problem exists, but is not defineable by the compiler
E	`Numeric value is overrange`	The number entered for this variable is too high
E	`Numeric value is underrange`	The number entered for this variable is too low
E	`Numeric value was expected, but was not found`	A character other than 0 to 9 has been entered
E	`Text found where number was expected`	Text other than 0 to 9 has been entered
E	`String is misspelled or not valid`	Incorrect or misspelled variable
E	`Entry is incomplete: missing option or identifier string`	Insuficient information supplied
E	`Cannot define COMMUNICATIONS CLASS without comm card definition`	A comm card is not correctly defined for this entry
E	`Cannot define BAUD RATE without comm card definition`	A comm card is not correctly defined for this entry
E	`Cannot define CARD TYPE without comm card definition`	A comm card is not correctly defined for this entry

FCC COMPILER WARNING & ERROR MESSAGES		
MESSAGE #	MESSAGE	POSSIBLE CAUSE
E	Cannot identify baud rate	Valid baud rates: 2300, 2400, 4800, 9600
E	Cannot identify comm card type	Allowable comm card types: RS-485, RS-232, Fiber optic, 20 mA current loop
E	Cannot identify communications class card type	Valid comm card class types: A or B
E	Record found which is invalid for DCPU files	Not Valid: Panel, Walktest, common test beep, san Comm, start action, start sequence, alternate sensitivity
E	Record found which is invalid for PCPU files	Not Valid: Display pattern
E	Improper display number	
E	Cannot determine if common test beep is enabled or disabled	Valid responses: Enabled or disabled
E	Expected, but could not find SILENT or AUDIBLE	Valid walk test types: SILENT or AUDIBLE
E	Cannot define PANEL TYPE without panel address definition	A panel is not correctly defined for this entry
E	Cannot define POLL BIT without panel address definition	A panel is not correctly defined for this entry
E	Cannot identify INSTALLATION SITE	Valid installations sites: American or European
W	Duplicate comm card definition found	A comm card with the same address was previously defined

FCC COMPILER WARNING & ERROR MESSAGES		
MESSAGE #	MESSAGE	POSSIBLE CAUSE
W	Duplicate comm port definition found	A comm port with the same address was previously defined
W	Duplicate display port definition found	A display port with the same address was previously defined
W	Duplicate display pattern definition found	A display pattern with the same identifier was previously defined
W	Duplicate node # definition found	A node with the same number was previously defined
W	Duplicate panel definition found for panel	This panel address has been previously defined
W	Message string is missing a terminating quotation mark	The quotation mark (") is missing at the end of this statement

FCC COMPILER WARNING & ERROR MESSAGES		
MESSAGE #	MESSAGE	POSSIBLE CAUSE

Appendix A
DCPU & PCPU Up Load Cable Connections

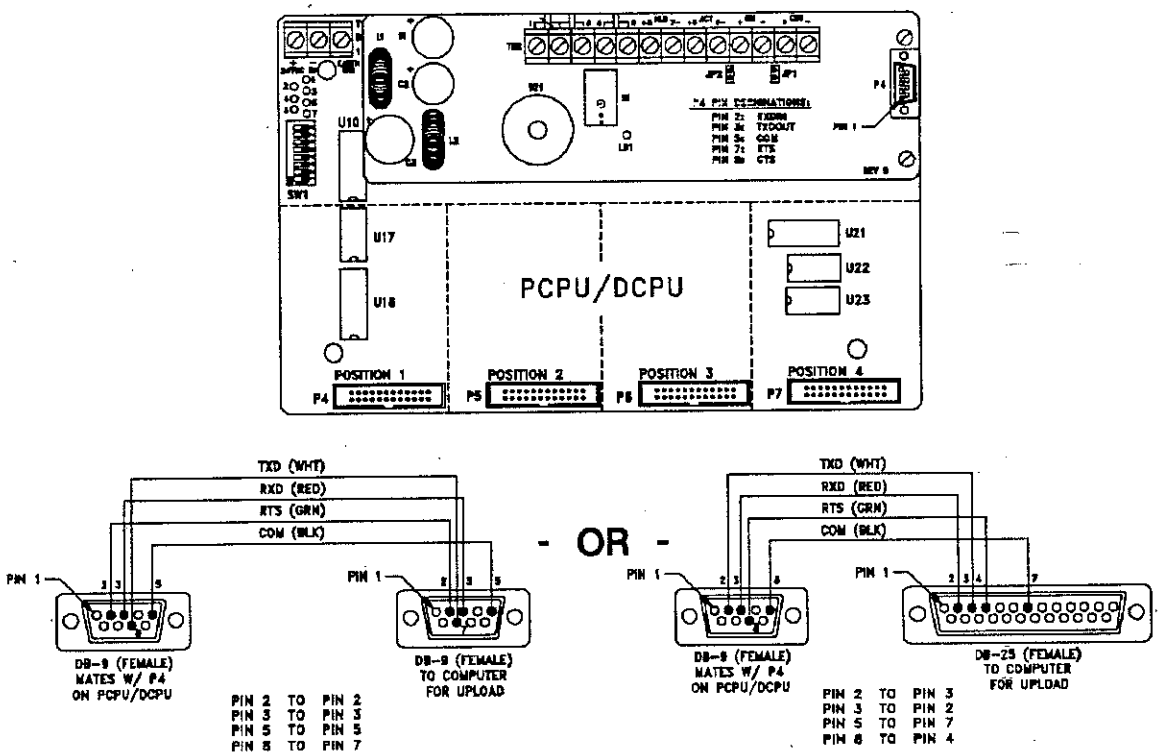


FCCDWNLD.DC2]

Up Load Cable Connections, Revision A boards

WARNING: The FCC Compiler program must be running before connecting the up load cable between the PC and a DCPU or PCPU.

Failure to observe this proceedure will cause a system failure.



[FCCUPLD1.DC2]

Up Load Cable Connections, Revision B boards

[COMPINST.DOC]

JOB NAME _____ **FCC ALARM ZONE WORK SHEET**

ZONE ADDRESS ALA ___ ___ ___ ___ ___ DESCRIPTION _____

ALARM SET (10) #,PRI,LL,PP,ZZ **DESCRIPTION**

02 ___ ___ ___ ___ _____
02 ___ ___ ___ ___ _____
02 ___ ___ ___ ___ _____

TROUBLE SET (10) #,PRI,LL,PP,ZZ

03 ___ ___ ___ ___ _____
03 ___ ___ ___ ___ _____

ALARM RESET (10) #,PRI,LL,PP,ZZ

04 ___ ___ ___ ___ _____
04 ___ ___ ___ ___ _____

TROUBLE RESET (10) #,PRI,LL,PP,ZZ

05 ___ ___ ___ ___ _____
05 ___ ___ ___ ___ _____

ALARM ACTION (6) #,ACT#

06 _____ _____
06 _____ _____
06 _____ _____
06 _____ _____
06 _____ _____

TROUBLE ACTION (6) #,ACT#

07 _____ _____
07 _____ _____

TEST ALARM ACTION (6) #,ACT#

08 _____ _____ **MESSAGES**

_____

TEST TROUBLE ACTION (6) #,ACT# _____

_____

09 _____ _____ _____

_____

[ALARMR00.WKS]

JOB NAME_____ **FCC SUPERVISORY ZONE WORK SHEET**

ZONE ADDRESS SUP ___ ___ ___ ___ ___ **DESCRIPTION** _____

SUP. OPEN SET (10) #,PRI,LL,PP,ZZ DESCRIPTION

02 ___ ___ ___ ___ _____
02 ___ ___ ___ ___ _____
02 ___ ___ ___ ___ _____

SUP. OPEN RESET (10) #,PRI,LL,PP,ZZ

03 ___ ___ ___ ___ _____
03 ___ ___ ___ ___ _____

SUP. OPEN ACTION (6) #,ACT#

04 _____ _____
04 _____ _____
04 _____ _____

SUP. SHORT SET (10) #,PRI,LL,PP,ZZ

05 ___ ___ ___ ___ _____
05 ___ ___ ___ ___ _____
05 ___ ___ ___ ___ _____

SUP. SHORT RESET (10) #,PRI,LL,PP,ZZ

06 ___ ___ ___ ___ _____
06 ___ ___ ___ ___ _____

SUP. SHORT ACTION (6) #,ACT#

07 _____ _____
07 _____ _____
07 _____ _____

PATROL # (6) #,PATROL#

08 _____ _____
08 _____ _____

[SUPZNR00.WKS]

JOB NAME_____

FCC SECURITY ZONE WORKSHEET

ZONE ADDRESS SEC ____ ____ ____ ____ ____ DESCRIPTION_____

PATROL # (4) #,PATROL# DESCRIPTION

02 _____ _____
02 _____ _____

SECURITY SET (10) #,PRI,LL,PP,ZZ

03 _____ _____ _____ _____ _____
03 _____ _____ _____ _____ _____
03 _____ _____ _____ _____ _____

SECURITY RESET (10) #,PRI,LL,PP,ZZ

04 _____ _____ _____ _____ _____
04 _____ _____ _____ _____ _____
04 _____ _____ _____ _____ _____

SECURITY ACTION (4) #,ACT#

05 _____ _____
05 _____ _____
05 _____ _____
05 _____ _____
05 _____ _____

MESSAGES

_____
_____
_____
_____
_____

[SECZNR00.WKS]

JOB NAME_____ **FCC REMOTE SWITCH ZONE WORK SHEET**
ZONE ADDRESS_REM___ ____ ____ ____ ____ ____ DESCRIPTION_____

SWITCH SET (10) #,PRI,LL,PP,ZZ **DESCRIPTION**

02 ____ ____ ____ ____ _____
02 ____ ____ ____ ____ _____
02 ____ ____ ____ ____ _____

SWITCH RESET (10) #,PRI,LL,PP,ZZ

03 ____ ____ ____ ____ _____
03 ____ ____ ____ ____ _____

SWITCH ACTION (6) #,ACT#

04 _____ _____
04 _____ _____
04 _____ _____

PATROL # (6) #,PATROL#

05 _____ _____
05 _____ _____

MESSAGES

_____
_____
_____
_____
_____

[FCCS-R00.WKS]

FCC ACTION WORKSHEET

ACT _____ **DESCRIPTION**_____

SET OUTPUT (10) #,PRI,LL,PP,ZZ

01 ___ ___ ___ ___	01 ___ ___ ___ ___	01 ___ ___ ___ ___
01 ___ ___ ___ ___	01 ___ ___ ___ ___	01 ___ ___ ___ ___
01 ___ ___ ___ ___	01 ___ ___ ___ ___	01 ___ ___ ___ ___
01 ___ ___ ___ ___	01 ___ ___ ___ ___	01 ___ ___ ___ ___
01 ___ ___ ___ ___	01 ___ ___ ___ ___	

RESET OUTPUT (10) #,PRI,LL,PP,ZZ

02 ___ ___ ___ ___	02 ___ ___ ___ ___
02 ___ ___ ___ ___	02 ___ ___ ___ ___

ACTIVATE ACTION (6) #, ACT#

03 _____	03 _____
03 _____	03 _____
03 _____	03 _____
03 _____	03 _____

RESTORE ACTION (6) #,ACT #

04 _____	04 _____
04 _____	04 _____

PATROL # (6) #,PATROL #

05 _____	05 _____
05 _____	05 _____

STORE PATROL PATTERN (8) #,PATROL #,MINUTES

06 _____	06 _____
06 _____	06 _____
06 _____	06 _____

ENABLE INPUT (8) #,LL,PP,ZZ

07 ___ ___ ___	07 ___ ___ ___	07 ___ ___ ___
07 ___ ___ ___	07 ___ ___ ___	07 ___ ___ ___

DISABLE INPUT (8) #,LL,PP,ZZ

08 ___ ___ ___	08 ___ ___ ___	08 ___ ___ ___
08 ___ ___ ___	08 ___ ___ ___	08 ___ ___ ___

ENABLE INPUT MESSAGE (8) #,LL,PP,ZZ

09 ___ ___ ___ 09 ___ ___ ___ 09 ___ ___ ___
09 ___ ___ ___ 09 ___ ___ ___ 09 ___ ___ ___

DISABLE INPUT MESSAGE (8) #,LL,PP,ZZ

10 ___ ___ ___ 10 ___ ___ ___ 10 ___ ___ ___
10 ___ ___ ___ 10 ___ ___ ___ 10 ___ ___ ___

ENABLE ACTION (6) #,ACTION

11 _____ 11 _____ 11 _____ 11 _____
11 _____ 11 _____ 11 _____ 11 _____

DISABLE ACTION (6) #,ACTION

12 _____ 12 _____ 12 _____ 12 _____
12 _____ 12 _____ 12 _____ 12 _____

ENABLE GEN TIME CONTROL (6) #,HOUR/MINUTES

13 _____ 13 _____ 13 _____ 13 _____

DISABLE GEN TIME CONTROL (6) #,HOUR/MINUTES

14 _____ 14 _____ 14 _____ 14 _____

ACTIVATE SEQUENCE (6) #,SEQ#

15 _____ 15 _____ 15 _____ 15 _____

CANCEL SEQUENCE (6) #,SEQ#

16 _____ 16 _____ 16 _____ 16 _____

ENABLE SEQUENCE (6) #,SEQ#

17 _____ 17 _____ 17 _____ 17 _____

DISABLE SEQUENCE (6) #,SEQ#

18 _____ 18 _____ 18 _____ 18 _____

JOB NAME_____ **FCC TIME CONTROL WORK SHEET**