

SPS DOS and SPSWin (4.0) On-Line Programmer

USER'S GUIDE

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IMPORTANT NOTICES

- ◆ **YOU MUST RELOAD THE SYSTEM'S MEMORY EACH TIME YOU USE OFF-LINE PROGRAMMING.** If you do not, the changes you make will not be recorded in the system's memory, and your system will behave unpredictably.
- ◆ **YOU MUST COPY THE SYSTEM'S MEMORY EACH TIME YOU USE ON-LINE PROGRAMMING.** If you do not, the system may become unstable or crash.
- ◆ **On-line programming may now be performed using the on-line programming feature in SPSWin version 4.0 (or higher). Use this manual for all information and instructions relating to SPS DOS. For more information on SPSWin, refer to the SPSWin on-line help or user's guide.**

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PART 1

INSTALLING SPS

A. ABOUT THIS MANUAL

- The procedures in this manual assume that you have basic computer knowledge. If not, please read your computer manuals before continuing
- The procedures in this manual assume that you have already read the manuals for your telephone entry system (Horizon, Infinity, or Multi-Link). If not, please read the appropriate manual before continuing.

B. HARDWARE REQUIREMENTS

To use SPS Software, the following items are required:

- A Sentex Horizon Unit, Infinity Unit or Multi-Link chain (maximum 16 units) connected to a telephone line (or direct connection via RS-232).
- An IBM PC-Compatible computer running MS-DOS version 3.3; or MS Windows 3.1 or higher; and:

Table 1. SPS Hardware Requirements.

MINIMUM	RECOMMENDED
386 processor 640 KB of RAM 8 MB hard disk free VGA monitor	Pentium processor 16 MB of RAM 20 MB hard disk SVGA monitor
REQUIRED:	
Hayes-compatible modem OR an open ComPort	
CD ROM Drive	
Mouse	

***Note:** This software has not yet been tested for use with Windows NT. Use at your own risk.

C. INSTALLING SPS-DOS IN WINDOWS 3.1 OR 3.11

1. Start Windows
2. Place the SPSWin CD ROM in the CD drive.
3. In Windows, from the FILE menu, choose RUN.
4. In the Command Line Box, type **D:\SPS-DOS\DISK3\INSTALL C:\SENTEX\SPS** and click OK ("D" is the letter of you CD drive).
This will install SPS-DOS into a **SENTEX\SPS** Directory on your C: Drive.
5. To run SPS-DOS after the installation is complete, from the FILE menu, choose RUN.
6. In the Command Line Box, type **C:\SENTEX\SPS\SPS.EXE** and click "OK".

IMPORTANT NOTE

If you are currently using TAP or IOP with the your system, you will need to copy the system's memory when you begin using SPS. See Part 3 for instructions.

D. STARTING SPS

Sentex Programming Software
Current Drive/Directory: [C:\]

Enter the drive and directory (e.g., C:\SENTEX or A:) where the system data files are to be found, then press Enter to continue. Leave the field below to select the current drive/directory shown in the window above. Press ESC to exit program.

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Figure 1. SPS Drive/Directory Screen.

1. At the DOS prompt, change to the directory where SPS is installed. The default is "C:\SENTEX\SPS".
2. Type "SPS".
3. Press the ENTER key. The copyright notice will be displayed.
4. Press any key. The Drive Directory Screen will be displayed (Figure 1).
5. If the databases are stored in a drive or directory other than that displayed at the top of the screen, type in the drive/directory.
6. Press ENTER. The Main Menu will be displayed.

E. EXITING SPS

IMPORTANT NOTE: Always exit from SPS before turning off your computer. Otherwise, data may be lost.

To exit from SPS, press the ESCAPE key until you return to the DOS prompt.

F. TIPS FOR USING SPS

- Use the arrow keys to move the menu bars. Then press ENTER to select the action.
- To get **Help**, press the F1 key.
- To exit any screen, press the ESCAPE key.

G. SPS SYSTEM SETUP OVERVIEW

When setting up new units, Sentex recommends that you follow the setup sequence provided below.

IMPORTANT NOTE:

After entering information in each area, do not forget to save the data before leaving the window, since **all data not saved will be lost.**

1. SYSTEM IDENTITY:

Stand Alone unit: set up the System Identity.

Multi-Link Chains: Set up the System Identity for EACH unit the Multi-Link chain.

2. COPY SYSTEM MEMORY

Connect to the unit, or units of Multi-Link chain, and Copy the system's memory to retrieve all the necessary unit settings and capacities, before you send data to the unit.

3. PROGRAM OFF-LIN

Add, edit, or delete Directory Codes. Add, edit, or delete Card/Entry Codes.

4. RELOAD SYSTEM MEMORY

Stand Alone unit: reload system memory to the unit.

Multi-Link Chains: reload system memroy to EACH unit in the Multi-Link chain.

A. SETTING UP A SYSTEM IDENTITY

Figure 2. SPS Main Menu.

Figure 3. System Setup Screen.

- Multi-Link:** When you enter “M”, SPS will add a step at the bottom System Setup Screen for entering the number of units in the chain (see Figure 4 below).

3. **Telephone Number.** Enter the telephone number for your system. You may use dashes (“-”) or spaces to separate the number, but not parentheses. If you have an RS-232 direct connection, leave this selection blank.
NOTE: If you have a PBX system that requires a dial-out digit, add a comma after the dial-out digit to add a short time delay. For example, “9, 555-1212”.
4. **Comm Port.** Enter the com port to use to connect to the unit.
NOTE: You can use the Identify Modem software utility to search for your computer’s COM port, detect a modem, and generate the initialization string for the modem. This utility is normally run when you install SPS. For more information, see Identify Modem Software Utility for SPS (Doc. No. 6001165).
5. **Program Access Code.** Enter the access code (password) for your system.
The factory default is 000000.
6. **Type of Dialing.** This entry will only appear if you entered a telephone number in step 4 above.
Enter “T” for tone dialing, or “P” for pulse dialing.
7. **Modem Init String.** The field only appears if you have a modem and entered a telephone number in step 4 above. The modem initialization string will appear in this field. If you have problems connecting to your system, consult your modem manual to change the modem initialization string.
8. **Answer Type.** Enter the the type of answer mode to use when calling the system.
 - **Old:** Use this answer mode if your Infinity system firmware revision is earlier than 66461; or your Horizon firmware revision is earlier than 26461.
 - **Auto:** Automatically send the password. Try this answer mode first.
 - **Manual:** If you have trouble connecting with Auto answer mode, choose Manual.

MULTI-LINK ONLY

Number of Units. Enter the total number of units in your Multi-Link chain (maximum 16 units).

SET UP A SYSTEM IDENTITY
-PRESS RETURN/ENTER BUTTON WHEN FINISHED WITH AN ENTRY
-TO CORRECT/CHANGE AN ENTRY, USE CURSOR AND/OR BACKSPACE KEYS
-PRESS THE PAGE DOWN (PgDn) KEY TO EXIT THIS SCREEN

SYSTEM NAME IS[] CHARACTERS ONLY - NO SPACES OR PUNCTUATION

TYPE OF SYSTEM.....[] M = INFINITY USING MULTI-LINK FIRMWARE
I = INFINITY USING STAND-ALONE FIRMWARE
H = HORIZON

TELEPHONE NUMBER.[] BLANK = DIRECT RS232 CONNECTION

COMM PORT TO USE...[] 1, 2, 3, OR 4

BAUD RATE TO USE...[] 1-300, 2-1200, 3-2400, 4-4800

PROGRAM ACCESS CODE. [] MUST BE SIX (6) CHARACTERS LONG

TYPE OF DIALING.....[] T FOR TONE P FOR PULSE

NUMBER OF UNITS.....[] 1-16

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Figure 4. System Setup Screen for Multi-Link.

B. EDITING A SYSTEM IDENTITY

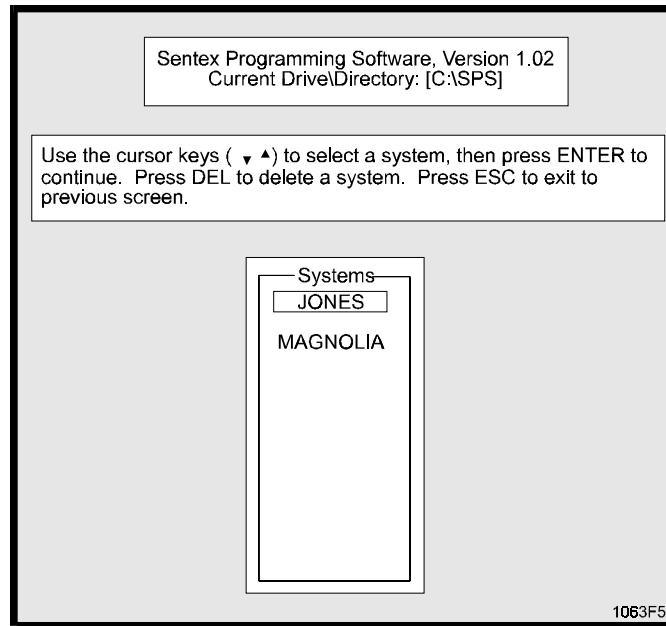


Figure 5. System Selection Screen.

1. From the SPS Main Menu, select EDIT A SYSTEM IDENTITY. Press Enter. The System Selection Screen will be displayed (see Figure 5).
2. Use the arrow keys to select the system. Press Enter. The Edit A System Identity Screen will be displayed.
3. Use the arrow keys to move from field to field. Make your changes.
4. When you have finished, press the PAGE DOWN key to save the data. You will be returned to the Main Menu.

C. DELETING A SYSTEM IDENTITY

1. From the Main Menu, select Edit a System Identity. Press Enter. The System Selection Screen will be displayed.
2. Use the arrow keys to select the system.
3. Press the DELETE key.
4. SPS will display a dialogue box asking you to confirm the delete. Enter "Y" at the prompt to delete the system, or "N" if you decide not to delete it. You will be returned to the System Selection Screen.

PART 3

COPYING A SYSTEM'S MEMORY

A. WHEN TO COPY YOUR SYSTEM'S MEMORY

You must copy your system's memory:

- The first time you run SPS
- After you have edited the system's identity
- After you have programmed the system on-line, or through a remote programming source other than SPS (e.g., handheld programmer, front panel keypad, etc.)
- After you upgrade the system, e.g., add greater capacities for directory/entry codes, etc.

B. COPY YOUR HORIZON OR INFINITY STAND-ALONE SYSTEM'S MEMORY

NOTE: To stop the copying process and terminate the connection to your system, press ESCAPE; or hold down the CTRL key and press "C" then release both.

From the Main menu, select WORK ON AN EXISTING SYSTEM. Select the system. SPS will display the Working Menu.

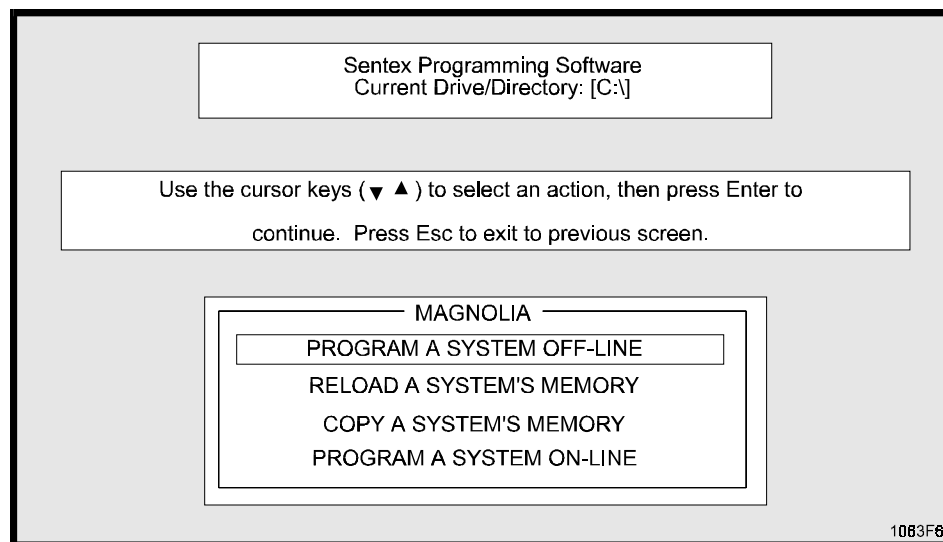


Figure 6. Working Menu.

1. Use the arrow keys to highlight COPY A SYSTEM'S MEMORY and press ENTER. SPS will connect to the unit and begin copying the system's memory.
During this process SPS will show that data is being received. Data is sent in blocks. **NOTE:** If SPS receives any **BAD** blocks of data, contact your installing dealer for assistance.
2. Once the copying process is complete, SPS will display the message "Reloading of Memory is complete – Hit any key to continue". Press any key. SPS will return you to the Working Menu.

C. COPY YOUR MULTI-LINK CHAIN SYSTEM'S MEMORY

NOTE: To stop the copying process and terminate the connection to your system, press ESCAPE, or hold down the CTRL key and press "C" then release both.

From the Main menu, select WORK ON AN EXISTING SYSTEM. Select the system. SPS will display the Working Menu.

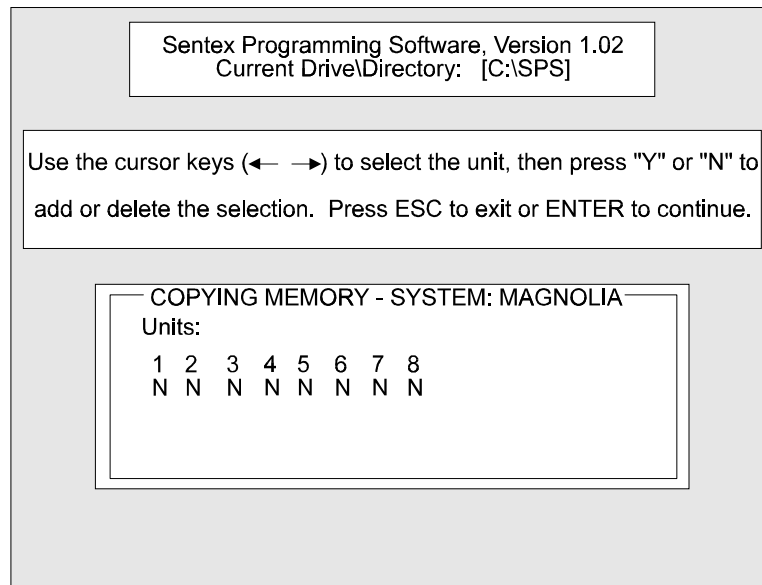


Figure 7. Multi-Link Unit Selection Screen.

1. Use the arrow keys to highlight COPY A SYSTEM'S MEMORY and press ENTER. SPS will display the Multi-Link Unit Selection Screen (see Figure 7).
2. Use the arrow keys to select a unit. Press "Y" to copy the unit's memory. When you have completed your selections, press ENTER. **NOTE:** Sentex recommends that you copy all the units' memories.
3. SPS will connect to the unit and begin copying the system's memory.
During this process SPS will show that data is being received. Data is sent in blocks. **NOTE:** If SPS receives any **BAD** blocks of data, contact your installing dealer for assistance.
3. Once the copying process is complete, SPS will display the message "Reloading of Memory is complete – Hit any key to continue". Press any key. SPS will return you to the Working Menu.

PART 4

PROGRAMMING A SYSTEM OFF-LINE

A. INTRODUCTION

SPS enables you to program your system without being connected to it. You can enter all the information, i.e., Entry Codes, Directory Codes, etc. When you have entered and saved all the data, you connect to the unit and send the new data (see Part A below).

IMPORTANT NOTES:

- Before programming your system, be sure to copy the system's memory. See Part 3 for details.
- When you are finished entering data, be sure to Save Changes. Otherwise, your entries will be lost.
- After entering data in SPS, you must **send data to a unit**. If you do not, the unit will not function predictably. See Part 6 for details.

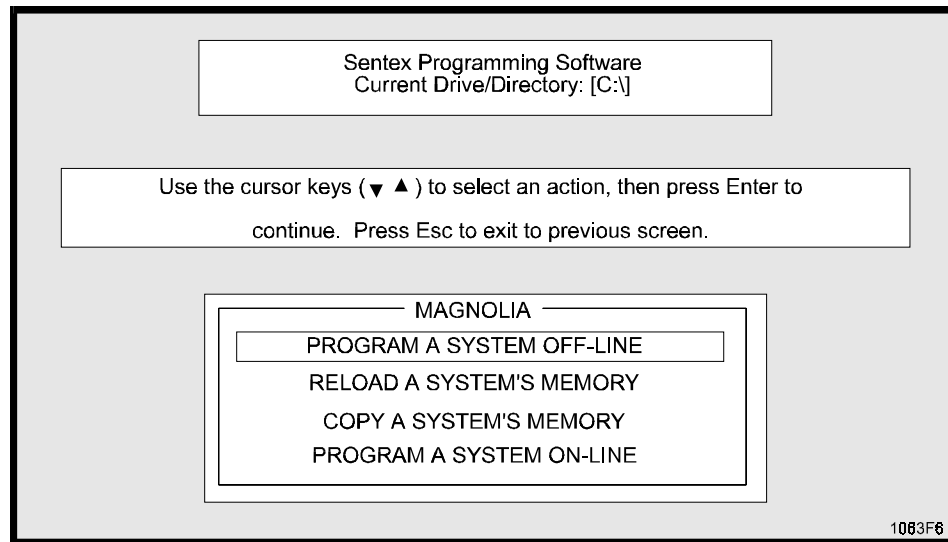


Figure 8. Working Menu.

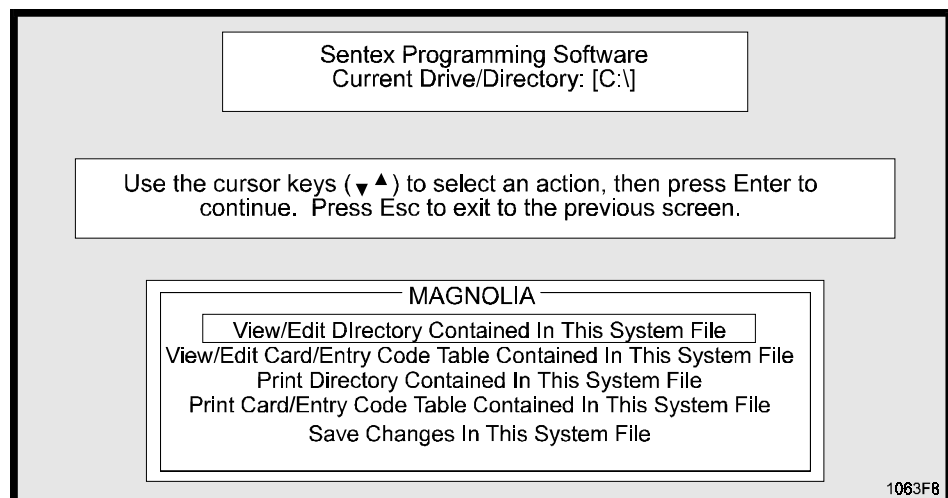


Figure 9. Off-Line Programming Menu

1. From the Main Menu, select WORK ON AN EXISTING SYSTEM. Select the system. The Working Menu will be displayed (see Figure 8).
2. Use the arrow keys to highlight PROGRAM A SYSTEM OFF-LINE and press ENTER. The Off-Line Programming Menu will be displayed (see Figure 9).
3. When you are finished programming, select Save Changes In This System File and press ENTER.

B. VIEW DIRECTORY CODES (INFINITY OR HORIZON)

Directory Code	Telephone Number	Name
082	5551212	ABNER, JAMES
134	7009800	ADAMS, GLENDA
012	4078787	ARLEDGE, PHIL
044	4075647	ARMSTRONG, L.
189	5551234	ARQUETTE, D.
015	5554321	ASTAIRE, TOM

Figure 10. Directory Code Selection Screen.

1. From the Off-Line Programming Menu, select View/Edit Directory Contained In This System and press ENTER.
2. SPS will display a dialogue box asking if you want the Directory Codes list sorted in numerical order. If you do, enter "Y". If you want the Directory Codes list sorted alphabetically, enter "N". SPS will display the Directory Code Selection Screen.
3. When you are finished, press ESC to return to the Off-Line Programming Menu. Be sure to save your work.

C. ADD DIRECTORY CODES (INFINITY OR HORIZON)

Applicable Unit: 1
Y
Code Length: 4
System Type: S
(C=Commercial, S=Standard)
Directory Code: 3824
Telephone Number: 5551234
Name: Johnson, Mike

CAPACITY UTILIZATION
Number of Telephone Numbers Purchased: 250
Number of Telephone Numbers Used: 223

Figure 11. Directory Code Editing Screen (Infinity or Horizon).

1. In the Directory Code Selection Screen, press the INSERT key. SPS will display the Directory Code Editing Screen.
2. Enter the **Directory Code**.
3. Enter the **telephone number**.
4. Enter the **name**. If you have a standard system, the name can be up to 13 characters long. If you have a commercial system, the name can be up to 35 characters long.
5. Press the ESCAPE key to return to the Directory Code Selection Screen. To add more directory codes, return to step one. If you are finished, press ESCAPE. SPS will return you to the Off-Line Programming Menu. Be sure to save your work.

D. EDIT DIRECTORY CODES (INFINITY OR HORIZON)

1. In the Directory Code Selection Screen, select the Directory Code you wish to edit and press ENTER. SPS will display the Directory Code Editing Screen.
You can find the Directory Code by scrolling through the list using the up and down arrow keys, or you can press F2 to use the find utility.
2. Change the **telephone number**.
3. Change the **name**. If you have a standard system, the name can be up to 13 characters long. If you have a commercial system, the name can be up to 35 characters long.
4. Press the ESCAPE key to return to the Directory Code Selection Screen. To edit more directory codes, return to step one. If you are finished, press ESCAPE. SPS will return you to the Off-Line Programming Menu. Be sure to save your work.

E. DELETE DIRECTORY CODES (INFINITY OR HORIZON)

1. In the Directory Code Selection Screen, select the Directory Code you wish to delete.
You can find the Directory Code by scrolling through the list using the up and down arrow keys, or you can press F2 to use the find utility.
2. Press the DELETE key. SPS will ask you to confirm the delete. Press “Y” to delete or “N” if you change your mind.
3. SPS will delete the Directory Code and return you to the Directory Code Selection Screen.
4. To delete more Directory Codes, return to step one. Press ESCAPE to return to the return to the Off-Line Programming Menu. Be sure to save your changes.

F. DIRECTORY CODES IN MULTI-LINK CHAINS

Whenever you view, add, edit or delete Directory Codes in Multi-Link chains, you must specify the units of the chain.

Field Edit
Enter your changes at the cursor. Press Enter to save the changes and move to the next field. ESC restores the field.

Applicable Units: 1 2 3 4 5 6
Y Y N N Y N

Code Length: 4 4 4 4 4 4
System Type: S S S S S S
(C=Commercial, S=Standard)

Directory Code: 3824
Telephone Number: 5551234
Name: Johnson, Mike

CAPACITY UTILIZATION - UNIT 1
Number of Telephone Numbers Purchased: 250
Number of Telephone Numbers Used: 223

Press the F1 key for help on editing fields 1063F11

Figure 12. Directory Code Editing Screen – Multi-Link.

1. From the Off-Line Programming Menu, select View/Edit Directory Contained In This System and press ENTER.
2. SPS will display a dialogue box asking if you want the Directory Codes list sorted in numerical order. If you do, enter “Y”. If you want the Directory Codes list sorted alphabetically, enter “N”. SPS will display the Directory Code Selection Screen.
3. When you press the INSERT key, select a Directory Code, or press the DELETE key, you will need to specify the applicable units at the top of the screen. Use the arrow keys to move from unit to unit. If you want the change to apply to the unit press “Y”; otherwise, press “N”.
4. When you are finished, press ESC to return to the Off-Line Programming Menu. Be sure to save your work.

G. HORIZON SYSTEM ENTRY CODES

Adding Entry Codes

From the Off-Line Programming Menu, select View/Edit Card/Entry Code Table Contained in This System File and press ENTER. The Horizon Entry Code Selection Screen will be displayed.

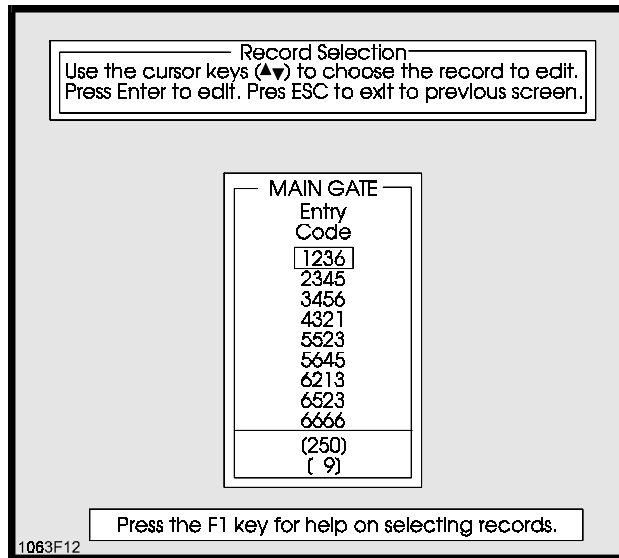


Figure 13. Horizon Entry Code Selection Screen.

1. Press the INSERT key. SPS will display a blank entry code area.
2. Type in the Entry Code. The Entry Code may be 4 or 5 digits long, depending on you system's configuration. If you are unsure how long the Entry Code may be, try entering 5 digits. If the system is configured to handle 4 digit Entry Codes, you will get an error message.
3. To insert more Entry Codes, return to step one.
4. When you are finished, press the ESCAPE key. SPS will return you to the Off-Line Programming Menu. Be sure to save your entries.

Deleting Entry Codes

1. From the Off-Line Programming Menu, select View/Edit Card/Entry Code Table Contained in This System File and press ENTER. The Horizon Entry Code Selection Screen will be displayed.
2. Select the Entry Code you wish to delete.
You can search for an Entry one of two ways. Use the arrow keys to scroll through the list of Entry Codes; or press F2 to use the find utility.
3. Press the DELETE key.
4. SPS will ask you to confirm the deletion. Press "Y" to delete the Entry Code, or "N" if you change your mind.
5. To delete more Entry Codes, return to step two.
6. When you are finished, press the ESCAPE key. SPS will return you to the Off-Line Programming Menu. Be sure to save your work.

H. INFINITY SYSTEM ENTRY CODES

Adding Entry Codes

From the Off-Line Programming Menu, select View/Edit Card/Entry Code Table Contained in This System File and press ENTER. The Infinity Entry Code Selection Screen will be displayed.

Card/Entry Code	Card	Time Zone	Valid At Door 1	Valid At Door 2	Name
16723	Y	0	Y	Y	Code 16723
16733	Y	0	Y	Y	Code 16733
19723	Y	0	Y	Y	Code 19723
19733	Y	0	Y	Y	Code 19733

Numbers of Codes Purchased: (100)
Numbers of Codes Used: (9)

Press the F1 key for help on selecting records

1063F13

Figure 14. Infinity Card/Entry Code Selection Screen.

1. Press the INSERT key. SPS will display a blank entry code area.
2. Type in the Entry Code. The Entry Code may be 4 or 5 digits long, depending on you system's configuration. If you are unsure how long the Entry Code may be, try entering 5 digits. If the system is configured to handle 4 digit Entry Codes, you will get an error message.
3. If you want to enter a Card Code, press "Y" in the Card column.
4. Enter the Time Zone. The default Time Zone is "0", which admits the card or code any time. For more information on Time Zones, see Programming Infinity Systems without Multi-Link Firmware, Doc. No. 6001021.
5. If you want the Card or Entry Code to grant access at Door 1, type "Y" in the Door 1 column.
6. If you want the Card or Entry Code to grant access at Door 2, type "Y" in the Door 2 column.
7. Enter the Name. The Name can be up to 16 characters long. The Name must **not** start with "&" (ampersand).
8. To insert more Entry Codes, return to step one.
9. When you are finished, press the ESCAPE key. SPS will return you to the Off-Line Programming Menu. Be sure to save your entries.

Date Limited Entry Codes

You have the option of limiting the time an Entry Code can be used. Enter the last date on which want the Entry Code used instead of the Name. The Entry Code will grant access from the time you send data to the unit, until the end of the date you entered. For example, if you enter "09/30/99", the Entry Code will grant entry until midnight, 1 October, 1999.

1. In the Name field (step 7 above), type "&" (ampersand), the two-digit year, two-digit month, and two-digit day.

Example: &990930

The Entry Code will be valid through 11:59 PM on 30 September, 1999.

Editing Entry Codes

1. Use the up and down arrow keys to highlight your selection and press Enter. Or press F2 for the Find utility.
2. Use the right and left arrow keys to move from field to field. Make your changes.
3. When you have finished making changes, press ENTER.
4. To make changes to more Entry Codes, return to step one.
5. When you are finished, press the ESCAPE key. SPS will return you to the Off-Line Programming Menu. Be sure to save your entries.

Deleting Entry Codes

1. From the Off-Line Programming Menu, select View/Edit Card/Entry Code Table Contained in This System File and press ENTER. The Infinity Entry Code Selection Screen will be displayed.
2. Select the Entry Code you wish to delete.
You can search for an Entry one of two ways. Use the arrow keys to scroll through the list of Entry Codes; or press F2 to use the find utility.
3. Press the DELETE key.
4. SPS will ask you to confirm the deletion. Press "Y" to delete the Entry Code, or "N" if you change your mind.
5. To delete more Entry Codes, return to step two.
6. When you are finished, press the ESCAPE key. SPS will return you to the Off-Line Programming Menu. Be sure to save your work.

I. MULTI-LINK SYSTEM ENTRY CODES

Adding Entry Codes

From the Off-Line Programming Menu, select View/Edit Card/Entry Code Table Contained in This System File and press ENTER. The Multi-Link Entry Code Selection Screen will be displayed.

Record Selection

Use the cursor keys (▲▼) to choose the record to edit.
Press Enter to edit. Press ESC to exit to previous screen.

Card/Entry Code	Card	Name
01323	Y	Code 01323
01328	Y	Code 01328
01332	Y	Code 01332
01346	Y	Code 01346
16720	Y	Code 16720
24659	Y	Code 24659
54136	Y	Code 54136

Press the F1 key for help on selecting records

1063F14

Figure 15. Multi-Link Card/Entry Code Selection Screen.

(Field Edit)

Enter your changes at the cursor. Press Enter to save the changes and move to the next field. (ESC) restores the field.

(Y)=Card, (N)=Code Y

Applicable Units:

	1	2	3
Door #1:	Y	Y	N
Door #2:	N	N	Y

Timezone: 0 1 4

Code: 01323

Name: Code 01323

Capacity Utilization - Unit 1

Number of Codes Purchased: 500

Number of Codes Used: 224

Press the F1 key for help on editing fields.

1063F15

Figure 16. Card/Entry Code Editing Screen for Multi-Link Systems.

1. Press the INSERT key. SPS will display the Card/Entry Code Editing Screen for Multi-Link Systems (see Figure 15). Use the arrow keys to move from field to field.
2. If you want to enter a Card Code, press "Y" in the Card field.
3. You must enable the Entry Code at either or both doors controlled by each unit. In the Door 1 row, enter "Y" to grant access at each unit. Do the same for Door 2.
4. Enter the Time Zone. The default Time Zone is "0", which admits the card or code any time. For more information on Time Zones, see Programming Infinity Systems with Multi-Link Firmware, Doc. No. 6001014.
5. Type in the Entry Code. The Entry Code may be 4 or 5 digits long, depending on you system's configuration. If you are unsure how long the Entry Code may be, try entering 5 digits. If the system is configured to handle 4 digit Entry Codes, you will get an error message.
6. Enter the Name. The Name can be up to 16 characters long. The Name must **not** start with "&" (ampersand) or "-" (dash). Press ENTER
7. To insert more Entry Codes, return to step one.
8. When you are finished, press the ESCAPE key. SPS will return you to the Off-Line Programming Menu. Be sure to save your entries.

Date Limited Entry Codes

You have the option of limiting the time an Entry Code can be used. Enter the last date on which want the Entry Code used instead of the Name. The Entry Code will grant access from the time you send data to the unit, until the end of the date you entered. For example, if you enter "09/30/99", the Entry Code will grant entry until midnight, 1 October, 1999.

1. In the Name field (step 6 above), type "&" (ampersand, the two-digit year, two-digit month, and two-digit day.

Example: &990930

The Entry Code will be valid through 11:59 PM on 30 September, 1999.

Use Limited Entry Codes

You have the option of limiting the time an Entry Code can be used. Enter “-” (dash), the number of uses allowed, a space and the name. The Entry Code will count down the number uses, starting with the first access after you send data to the unit, until the use count reaches zero. For example, if you enter “-25 Doe, John”, the Entry Code will grant access 25 times.

1. In the Name field (step 6 above), type “-” (dash), the number of uses allowed, a space and the name.

Example: -30 Doe, John

The Entry Code will be valid thirty times.

NOTE: SPS keeps track of the number of accesses left in the Name field. If you want to know how many uses John Doe has left on his Entry Code, check the Name field. After John Doe has used his Code 6 times, the Name field will read “-24 Doe, John”.

Editing Entry Codes

1. Use the up and down arrow keys to highlight your selection and press ENTER. Or press F2 to use the find utility.
2. Use the right and left arrow keys to move from field to field. Make your changes.
3. When you have finished making changes, press ENTER.
4. To make changes to more Entry Codes, return to step one.
5. When you are finished, press the ESCAPE key. SPS will return you to the Off-Line Programming Menu. Be sure to save your entries.

Deleting Entry Codes

1. From the Off-Line Programming Menu, select View/Edit Card/Entry Code Table Contained in This System File and press ENTER. The Multi-Link Entry Code Selection Screen will be displayed.
2. Select the Entry Code you wish to delete.
You can search for an Entry one of two ways. Use the arrow keys to scroll through the list of Entry Codes; or press F2 to use the find utility.
3. Press the DELETE key.
4. SPS will ask you to confirm the deletion. Press “Y” to delete the Entry Code, or “N” if you change your mind.
5. To delete more Entry Codes, return to step two.
6. When you are finished, press the ESCAPE key. SPS will return you to the Off-Line Programming Menu. Be sure to save your work.

PART 5

PRINTING

A. PRINTING DIRECTORY CODES

From the Main Menu, go to the Off-Line Programming Menu (see Figure 17).

Sentex Programming Software
Current Drive/Directory: [C:\]

Use the cursor keys (▼▲) to select an action, then press Enter to continue. Press Esc to exit to the previous screen.

MAGNOLIA

View/Edit Directory Contained In This System File
View/Edit Card/Entry Code Table Contained In This System File
Print Directory Contained In This System File
Print Card/Entry Code Table Contained In This System File
Save Changes In This System File

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Figure 17. Off-Line Programming Menu.

Sentex Programming Software, Version 1.02
Current Drive\Directory [C:\SPS]

Enter the number of Lines per Page.
Press the enter key when ready.

66

1063F18

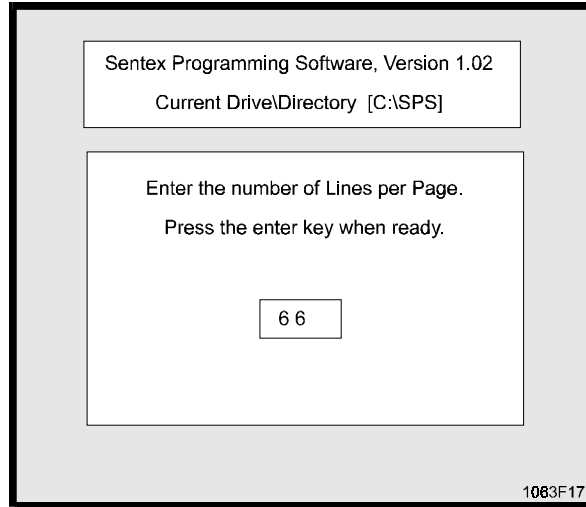
Figure 18. Directory Code Printing Screen.

1. Use the up and down arrow keys to highlight Print Directory Contained In This System File. Press ENTER. The Directory Code Printing Screen will be displayed (see Figure 18).
2. Enter the number of lines to print on each page. Sentex recommends try 66 to start. You may need to alter the number of lines, depending on your printer and font.
3. SPS will ask you whether to sort the Directory Codes by number or alphabetically by name. Enter "C" to sort by Directory Code, or "N" to sort alphabetically. Press ENTER.
4. SPS will print the Directory Codes, then return to the Off-Line Programming Menu.

NOTE: SPS prints to LPT1 only.

B. PRINTING ENTRY CODES

From the Main Menu, go to the Off-Line Programming Menu.



Sentex Programming Software, Version 1.02
Current Drive\Directory [C:\SPS]

Enter the number of Lines per Page.
Press the enter key when ready.

66

1083F17

Figure 19. Card/Entry Code Printing Screen.

1. Use the up and down arrow keys to highlight Print Card/Entry Code Table Contained In This System File. Press ENTER. The Card/Entry Code Printing Screen will be displayed.
2. Enter the number of lines to print on each page. Sentex recommends try 66 to start. You may need to alter the number of lines, depending on your printer and font.
3. **Infinity or Multi-Link:** SPS will ask you whether to sort the Card/Entry Codes by number or alphabetically by name. Enter "C" to sort by Card/Entry Code, or "N" to sort alphabetically. Press ENTER.
4. SPS will print the Directory Codes, then return to the Off-Line Programming Menu.

NOTE: SPS prints to LPT1 only.

PART 6

RELOADING SYSTEM'S MEMORY

A. NORMAL/ROUTINE RELOAD

Each time you make changes in SPS you will need to reload the system's memory. Reloading the memory makes the changes effective at the unit or chain.

From the Main Menu, select Work On An Existing System. Choose the system. From the Working Menu, select Reload A System's Memory. The Reloading Menu will be displayed (see Figure 20).

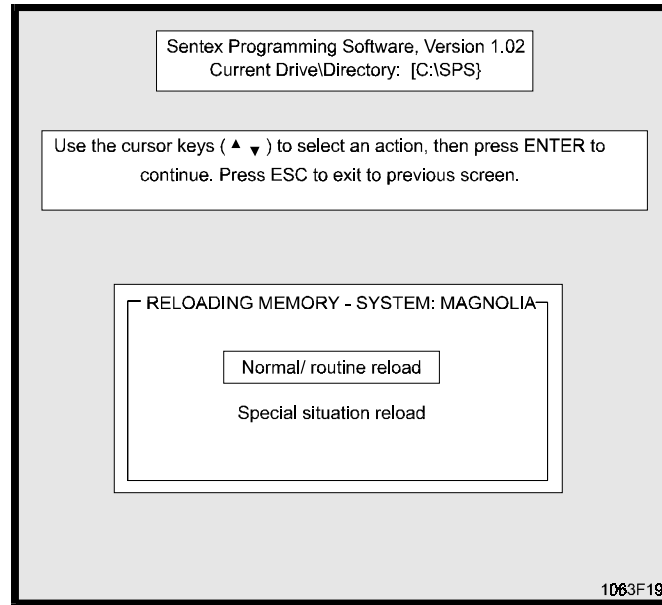


Figure 20. Reloading Menu.

1. Use the up and down arrow keys to highlight Normal/routine reload. Press ENTER.

First, SPS will check to see whether any programming has been done through on-line programming, or from a different location, such as the front panel keypad. If you have only performed off-line programming, SPS will perform a **DELTA** reload, sending only the changes you have made to the system. If the unit has been programmed in any mode other than Off-Line Programming, SPS will perform a **FULL** reload, sending all the data to the unit.

SPS will display the System Reloading Screen. It will tell you whether SPS is performing a DELTA or a FULL reload, and show its progress through the number of block reloaded.

NOTES:

- If this is the first time you programmed your system through SPS, SPS will perform a FULL reload.
- If SPS is unable to contact the system or communication is interrupted, it will retry up to 5 times.
- To terminate reload, press ESCAPE. Or hold down the CTRL key, press "C", and release both.

B. SPECIAL SITUATION RELOAD

Most of the time, you can do a Normal/routine reload. However, SPS does give you the option of specifying whether to perform a DELTA reload or a FULL reload.

From the Main Menu, select Work On An Existing System. Choose the system. From the Working Menu, select Reload A System's Memory. The Reloading Menu will be displayed (see Figure 20).

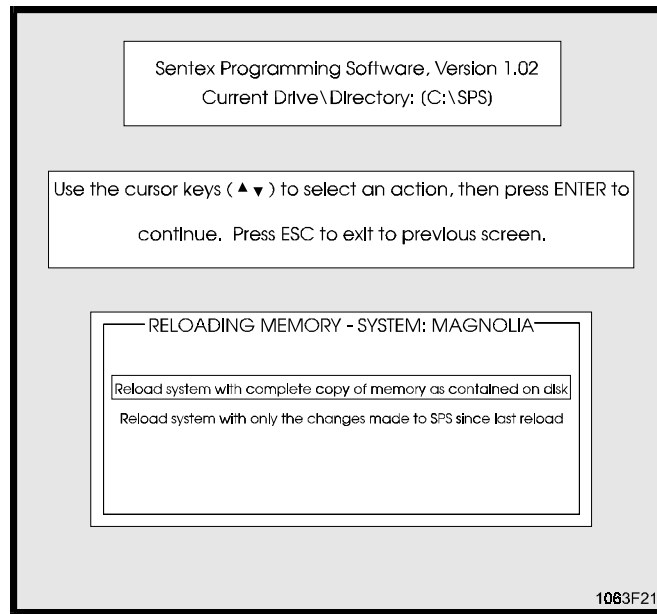


Figure 21. Special Reloading Screen.

1. Use the up and down arrows to highlight Special situation reload. Press ENTER. SPS will display the Special Reloading Screen.
2. Select Reload system with complete copy of memory as contained on disk (FULL) or Reload system with only the changes made to SPS since last reload (DELTA).
3. SPS will display a message explaining the type of reload and ask whether you wish to continue. Type "Y" to continue, or press the ESCAPE to return to the Special Reloading Screen.

SPS will display the System Reloading Screen. It will tell you whether SPS is performing a DELTA or a FULL reload, and show its progress through the number of block reloaded.

NOTES:

- If SPS is unable to contact the system or communication is interrupted, it will retry up to 5 times.
- To terminate reload, press ESCAPE. Or hold down the CTRL key, press "C", and release both.

PART 7

ON-LINE PROGRAMMING

On-Line Programming allows you to connect to the system and program it directly. It is the same as using the hand-held programmer, or the keypad. When you use On-Line Programming, there is no need to reload your system's memory.

IMPORTANT NOTE

After you use On-Line Programming, you **must** Copy The System's Memory. If you do not, your system may become unstable or crash.

From the Main Menu, select Work On An Existing System. Choose the system. The Working Menu will be displayed.

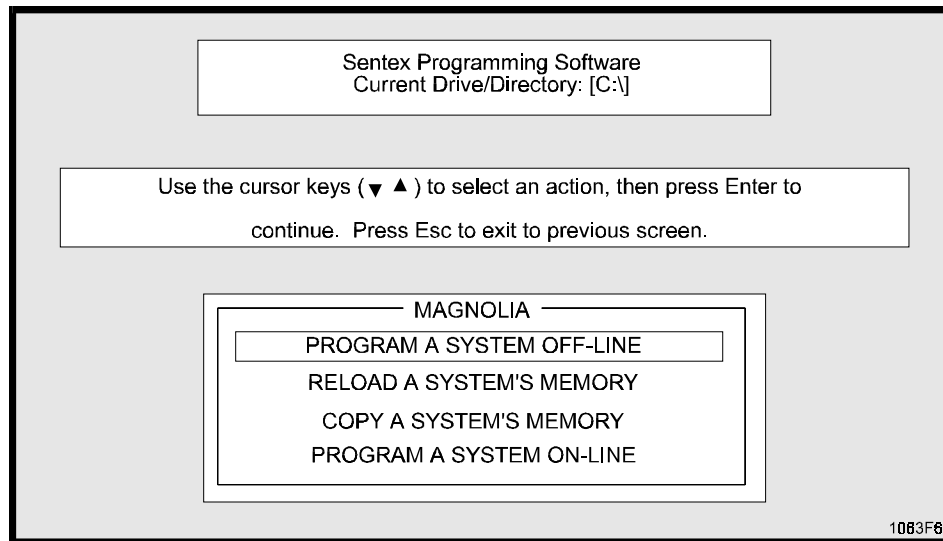


Figure 22. Working Menu.

1. From the Working Menu, use the arrow keys to highlight PROGRAM A SYSTEM ON-LINE, and press ENTER. The On-Line Programming Screen will be displayed.
NOTE: SPS may display a message indicating that it is copying the system's memory. This is normal, especially if this is the first time you used On-Line Programming, or you have recently updated the system's firmware.
2. Once you are connected, you may program the system using the programming steps described in
Horizon: Instruction Manual for Programming and User of Horizon Systems (Doc. No. 6001036)
Infinity: Programming Infinity Systems Without Multi-Link Firmware manual (Doc. No. 6001021)
Multi-Link: Programming Infinity Systems With Multi-Link Firmware manual (Doc. No. 6001014).

WARNING:

Infinity/Multi-Link: Do not use On-Line Programming in areas 13, 14, 16, 17, 18, 19 or 20.

Horizon: Do not use On-Line Programming in areas 7, 8, 10, 11 or 12.

Use of On-Line Programming in these areas may cause your system to crash.

3. To exit On-Line Programming, press ESCAPE. SPS will hang up (if you are using a modem) and display the message "PRESS ANY KEY TO CONTINUE".
4. Press any key to return to the Working Menu.

IMPORTANT NOTE: Before doing any Off-Line Programming, be sure to copy the system's memory. If you try to reload changes without first copying the system's memory, your On-Line changes will be lost and your system may crash.

APPENDIX

ERROR MESSAGES AND THEIR MEANINGS

ERROR MESSAGES	MEANINGS
Unit(s): Failed to memory copy Unit(s): Failed to memory reload	Copy or Reload memory failed at this unit. Possible causes include: 1. User pressed ESC or CTRL-C 2. Noise on telephone line. Try copying or reloading again. If there are bad blocks, this is probably why. 3. Multi-Link: go to Edit a System's Identity; verify that the number of units in the chain is correct.
The system was busy	SPS got a busy signal when it tried to connect. Wait a few minutes and try again.
No carrier detected	The system's modem failed to transmit a modem carrier signal. 1. Wait a few minutes, then try again. 2. If the error occurs again, call the unit and verify that the modem is transmitting the carrier signal (high pitched squeal). 3. If the modem is not transmitting the carrier signal, call your installing dealer for instructions. 4. Check your modem instructions to verify that SPS is sending the correct initialization string.
No dialtone	Possible causes: 1. System identity incorrect. 2. Telephone line connection is bad. 3. Telephone line is dead. 4. Modem is not working properly.
SPS failed to connect with the system Multi-Link system failed to logon Horizon system failed to logon Infinity system failed to logon	1. Wait a few minutes then try again. 2. Edit the system identity and verify that the password, baud rate and com port settings are correct. 3. Verify that the modem initialization string is correct. 4. Make sure the connections between the terminal and the modem are correct. 5. Contact the installing dealer.
Multi-Link failed to send salutation Horizon system failed to send salutation Infinity system failed to send salutation	1. Wait a few minutes then try again. 2. Verify that the modem initialization string is correct. 3. Verify that the baud rate is correct. 4. Verify that the connections between the terminal and the modem are correct. 5. Verify that the com port is correct. 6. Call the installing dealer.

ERROR MESSAGES	MEANINGS
The Multi-Link system stopped talking The Horizon system stopped talking The Infinity system stopped talking	1. Wait a few minutes, then try again. 2. Contact the installing dealer.
Shut down due to inactivity	No activity occurred for three minutes while SPS was in On-Line Programming Mode. Wait a few minutes, then try again.
Cannot read system files	SPS could not open the file SPSTEM.DBF. Find out which directory the file resides in. Start SPS and make sure it is looking at the correct directory.
Couldn't install COMM-PORT	1. Make sure the com port number in the system identity is correct. 2. If you continue to have this problem, the serial port or modem may not be working.
SPS failed the dialing process The modem is not Hayes-compatible	1. Read the modem documentation. Verify that the modem is Hayes-compatible. 2. Verify that the com port, baud rate, and modem initialization are correct in the System Identity.
Printer time out Printer I/O error No printer connected	1. Verify that the printer is connected to parallel port LPT1. 2. Verify that the printer has paper. 3. Verify that the printer is on-line.
Write file error Read file error Seek file error	The most common cause of these messages is lack of disk space. Check to make sure you have at least 100 KB of disk space available.
Create file error	The most common cause of this message is running SPS from the root directory. Create a subdirectory SPS and its supporting files.
Open file error	In CONFIG.SYS, FILES is set to some number less than 30. Make sure FILES = 30 or more.
Error telephone line XXX	Write down the error number and call Sentex Customer Support
Waiting for a response from the Horizon Waiting for a response from the Infinity	SPS displays this message when it has contacted the unit and is waiting for a response.
SPS failed the dialing process	Modem is not Hayes-compatible.

MULTI-LINK ERROR MESSAGES

ERROR MESSAGES	MEANINGS
The system is active on another device	The system is currently being programmed by some other device, such as a handheld programmer or the keypad. IMPORTANT NOTE: In this situation, be sure to copy the system's memory before programming in SPS.
System shutdown due to multiple communication errors	This error is usually caused by noise on the communication line. Try connecting again. If there are one or more bad blocks: 1. Have the telephone company check the line for excessive noise. 2. Make sure your modem is working correctly. 3. Make sure your serial com port is working correctly.
EEPROM error detected	One of the units in the chain may be damaged. Call the installing dealer.
Incorrect number of units defined	Verify that the number of units in the System Identity is correct. Use On-Line Programming Mode, Step 80 to verify the number of units.
Incorrect access code defined in the setup	1. Verify that the password is correct in the System Identity. 2. Try programming the system On-Line. 3. If the problem continues, contact the installing dealer.
The system is currently making an alarm call	Wait a few minutes and try again.
Copy text error	1. Wait a few minutes, then try again. 2. If the problem continues, call the installing dealer.
The system needs to be resequenced	Use On-Line Programming to resequence the units.

GLOSSARY

Baud Rate. A measure of data transmission speed between units, systems and/or modems.

Baud Rate To Use. The field in your System's Identity that tells SPS what rate of transmission to use when communicating with your system.

Comm Port. A port on your computer designated for communications.

Comm Port To Use. The field in your System's Identity that tells SPS which comm port on your computer use when communication with your system.

Copy A System's Memory. This command tells SPS to collect what is saved your system's memory and enter it into the SPS database.

Date Limited Card/Entry Codes. Card or Entry Codes with a designated date limit will no longer be granted access after the specified date.

DELTA reload. This command tells SPS to send the changes you have made while programming off-line.

Directory Code Editing Screen. The SPS screen that allows you to insert or edit a Directory Code.

Directory Code Selection Screen. This screen displays a list of the Directory Codes in the system. You can select a Directory Code from this screen to edit or delete.

Drive Directory Screen. In this screen, you tell SPS where to find the SPS system files.

FULL reload. This command tells SPS to send all the data for the system to that system's memory.

Modem Editing Screen. You can use this screen to edit the modem initialization string.

Modem Initialization String. This is the set of commands SPS send to you modem when connecting to your Horizon, Infinity, or Multi-Link system.

Number of Units. The field in your System's Identity tells SPS how many units there are in your Multi-Link chain.

Off-Line Programming. This feature allows you to enter Directory Codes and Card/Entry Codes, and print Directory Codes and Card/Entry Codes without being connected to the unit. When you are finished, you must reload the system's memory.

On-Line Programming. This feature allow you to program your system directly, as if you were using the front keypad, or a hand-held programmer.

Programming Access Code. The password needed to program you system.

Reloading a System's Memory. The command tells SPS to send changes or send all data to the system's memory. You must use this command when you have made change using Off-Line Programming.

Setting Up a System's Identity. You must tell SPS about your system, before you can copy the system's memory and use Off-Line (or On-Line) Programming.

System Name. You give the system a name which is easy for your to remember.

Telephone Number. SPS will use this telephone number to call your system.

Terminal Mode. The installing dealer or Sentex Customer Support can use Terminal Mode to see what is happening at your system.

Type of Dialing. In the System Identity, you must specify whether your modem will use tone or pulse (also known as rotary) dialing.

Type of System. In the System Identity, you must tell SPS which type of system you are setting up: Horizon, Infinity, or Multi-Link.

Use Limited Card/Entry Codes. These Cards/Entry Codes can only be used the number of times you specify.