Version 1.2

PagerNET *plus*
User Manual
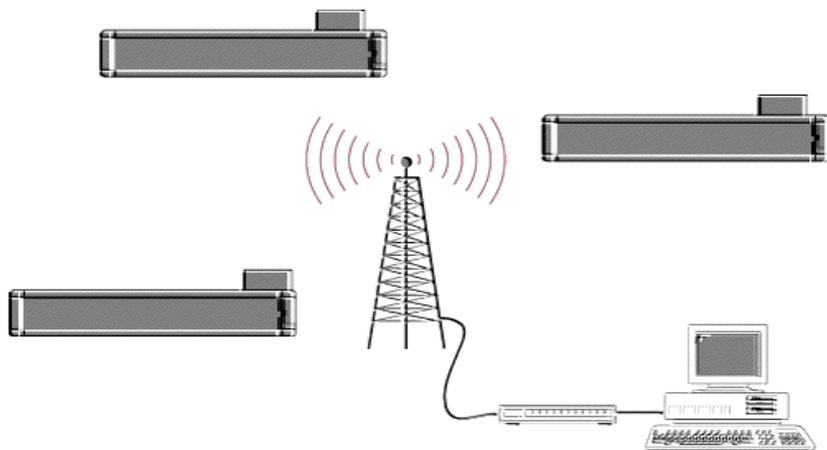
*for use with an
ALPHA 215, Big Dot®, 4000 Series, 7000 Series, or 300 Series
Electronic Message Center
equipped with a Wireless Data Receiver
in a
WAWN (Wide Area Wireless Network)*

ADAPTIVE

NOTE: Due to continuing product innovation, specifications in
this document are subject to change without notice.

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Contents

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Purchasing a Data Receiver

PagerNET *plus* software is intended for use with signs that are part of a Wide Area Wireless Network (WAWN). (See "Connecting your signs with a wireless network" on page 8.)

To do this, a Data Receiver must be connected to a sign. Messages you create with the PagerNET *plus* are transmitted to your paging service who then sends them to a Data Receiver:

See the **ALPHA™ On-Site Wireless Data Receiver Installation Manual** (part number 9708-8080) for complete information on how to connect a Data Receiver to ALPHA 215, Big Dot®, 4000 Series, 7000 Series, and 300 Series signs.

Data Receiver plugs into a sign's RS232 jack.

On a 4000 Series sign, these jacks are on the back.
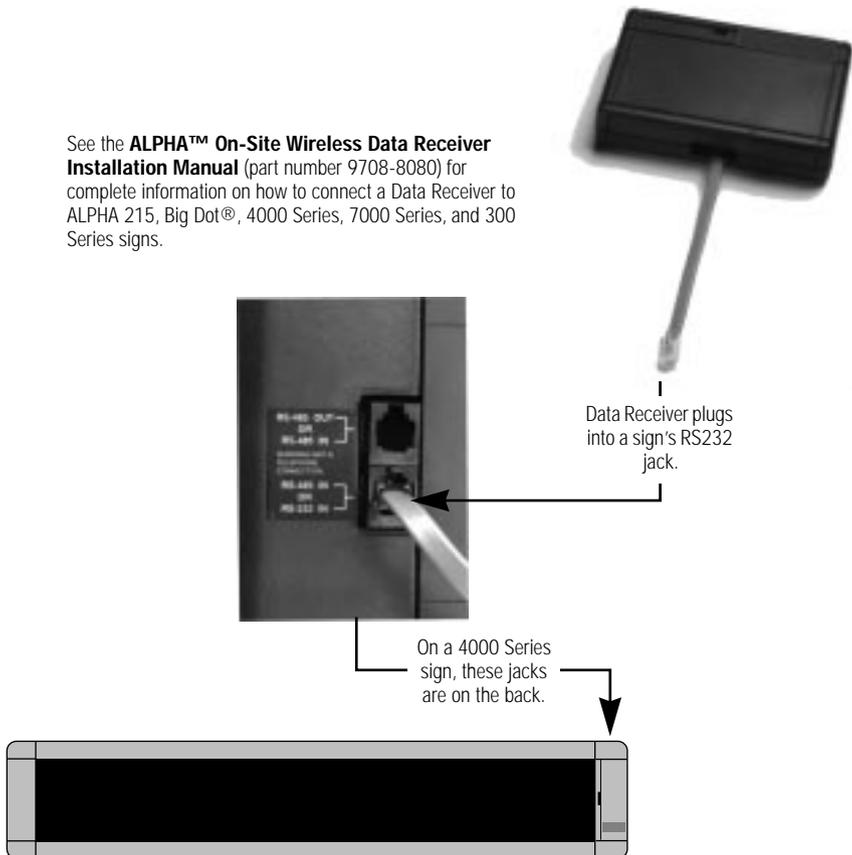
Figure 1: How to connect a Data Receiver to a sign.

Step 1 — Sign up with a paging service

Buy a pager and paging service from a provider like SkyTel, PAGENET, etc.

Step 2 — Order a Data Receiver

The pager from your service provider will have a frequency, CAPCODE, and POCSAG baud rate which you'll need when ordering a Data Receiver for a sign:

Frequency of the pager ⟶ 928.3375 MHz

1234567 ⟵ CAPCODE of the pager
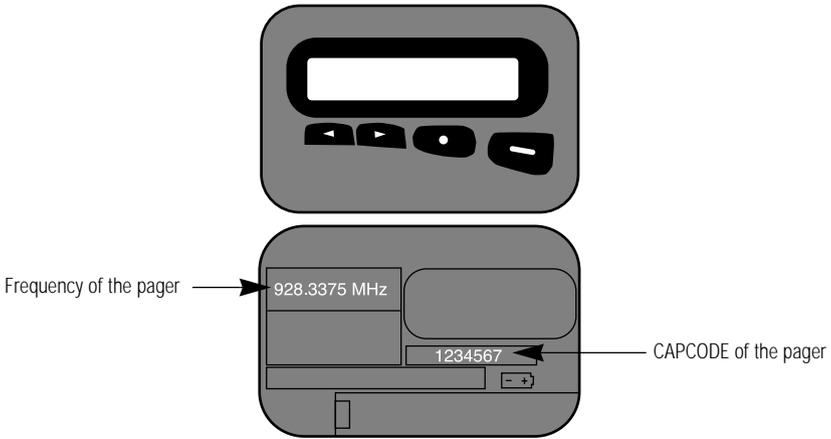
Figure 2: A typical pager (front and back).

Step 3 — Make sure your sign has EZ95 firmware

Your sign has a computer chip or EPROM inside which controls its operation. This chip contains software called firmware which is updated from time to time. The latest version of this firmware is called *EZ95*.

If your sign does <u>not</u> have EZ95 firmware, then you must order an EZ95 upgrade for the PagerNET *plus* software to work.

To see if your sign has EZ95 firmware . . .

1.   Restart your sign by either

     unplugging it and then plugging it in again, or

     pointing a Remote Control at your sign and then holding down **SHIFT** and pressing **PROGRAM** twice.

2.   Next, the phrase *EZ95* should appear on your sign when it starts up:
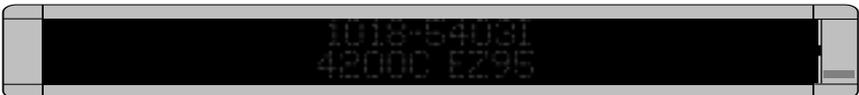
Figure 3: Startup message on a 4200C sign.

Installing PagerNET *plus* software

System requirements

To use PagerNET *plus* software, you'll need the following:

- Personal computer running MS DOS 2.1 or higher
- 3.5-inch diskette drive
- hard drive with at least 400k of free space
- 640K RAM (memory)
- Black and white or color monitor
- Microsoft-compatible mouse (optional)
- RS232 serial port (PC card)

Using DOS to install PagerNET plus

1. Make a backup copy of your PagerNET *plus* diskette.
2. Insert the original PagerNET *plus* diskette into drive A.
3. Type the following DOS commands (shown in bold):

What you type (in bold)	What it means
C:\>**mkdir pagernet**	Create a directory on your hard drive called *pagernet*.
C:\>**cd pagernet**	Change to the *pagernet* directory.
C:\PAGERNET>**copy a:**	Copy all the files on the PagerNET *plus* diskette to the *pagernet* directory.

C:\PAGERNET>**dir**	Displays a list of all the files in the *pagernet* directory which should look something like this:
	
	`.            <DIR>   06-25-96   10:30a`
	`..           <DIR>   06-25-96   10:30a`
	`00000000 CRD      52 10-17-95   11:46a`
	`SIGNS    DAT     572 07-17-93    8:11a`
	`SYS$ERR  DTA    3118 11-04-92    8:18a`
	`SYS$HELP DTA    3722 11-04-92    8:18a`
	`SYS$MSG  DTA   12468 11-04-92    8:19a`
	`ALPHANET EXE   82819 10-17-95    4:19p`
	`NETPLUS  EXE  161059 10-17-95    5:15p`
	`ALPHAHLP HLP   21021 02-14-95    3:07p`
	`NETHLP   HLP   19238 10-17-95    2:13p`
	`LASTCARD OVL      12 10-17-95    3:10p`
	`SYSTEM   OVL     153 10-17-95    3:10p`
	`00000000 SND       5 10-17-95   11:48a`
	`READ_ME  TXT    1329 10-17-95    5:18p`

C:\PAGERNET>**netplus**	Starts the PagerNET *plus* software.

4. This completes the DOS software installation.

Using Windows 3.1 to install PagerNET plus

1. Make a backup copy of your PagerNET *plus* diskette.
2. Insert the original PagerNET *plus* diskette into drive A.
3. Start Microsoft Windows.
4. Open the *File Manager*:

5. From the *File Manager*, select *File* and then *Create Directory*:

6.   Type a directory name (like *pagernet*):

7.   From the *File Manager*, select *Window* and then *New Window*. Then click on the drive *a* icon. Next, copy the contents of drive A to the *pagernet* directory on drive C. To do this, drag the folder in the drive A window to on top of the *pagernet* folder.

Drag the drive A directory icon to on top of the *pagernet* directory icon.
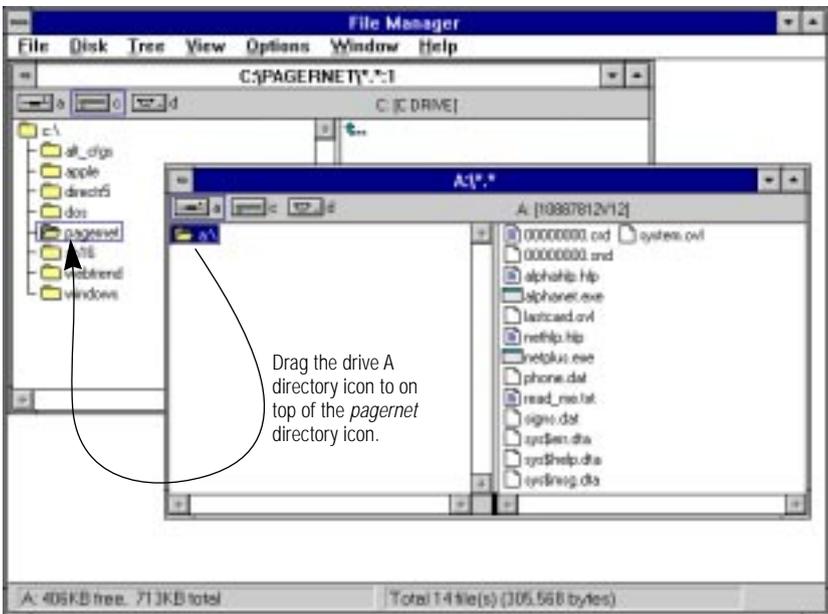
8.   Messages like this will appear as the files are copied:
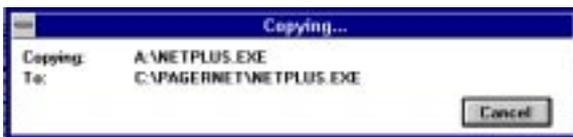
9. After the files have been copied, close the *File Manager*. Then select *New* from the *Program Manager*:

10. Select *Program Group*:

11. When the following window appears, type *PagerNET plus:*

12. Select *New* again, but this time select *Program Item*:

13. **When the following window appears, enter the information as shown below:**

Use whatever software version is printed on the PagerNET *plus* diskette.
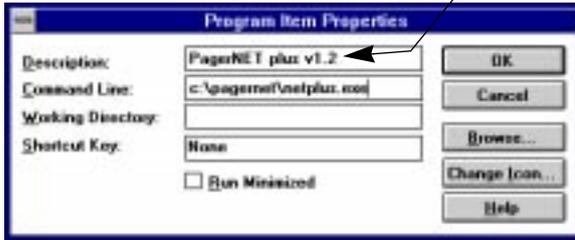
14. **You have just created a program icon for the PagerNET *plus* software. Whenever you want to start PagerNET *plus*, just double click on this icon:**
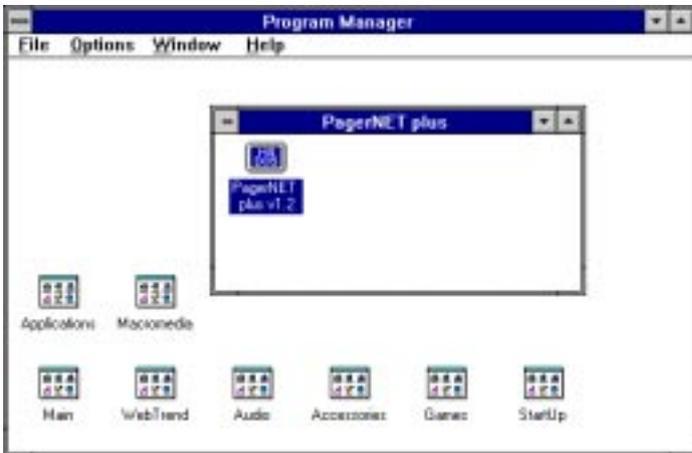
15. **This completes the Windows software installation.**

Connecting your signs with a wireless network

Overview

There are several ways to connect (or "network") your PC to signs. For example, messages can be sent to one or more signs which are wired directly to your PC, or which are connected via a modem. However, PagerNET *plus* software is specifically designed for use with a WAWN (Wide Area Wireless Network).

Creating a WAWN (Wide Area Wireless Network)

This is the type of network intended for the PagerNET *plus* software:

A	1088-1411	VHF Data Receiver (138 to 174 MHz)	Your paging service should supply you with a frequency and CAPCODE which will determine what Data Receiver you need.
	1088-1412	UHF Data Receiver (435 to 480 MHz)	
	1088-1413	900 MHz Data Receiver (929 to 931 MHz)	
B	—	Phone line	
C	—	Modem	
D	—	standard 25 pin-to-25 pin RS232 cable	
E	1088-7812	PagerNET *plus* software	
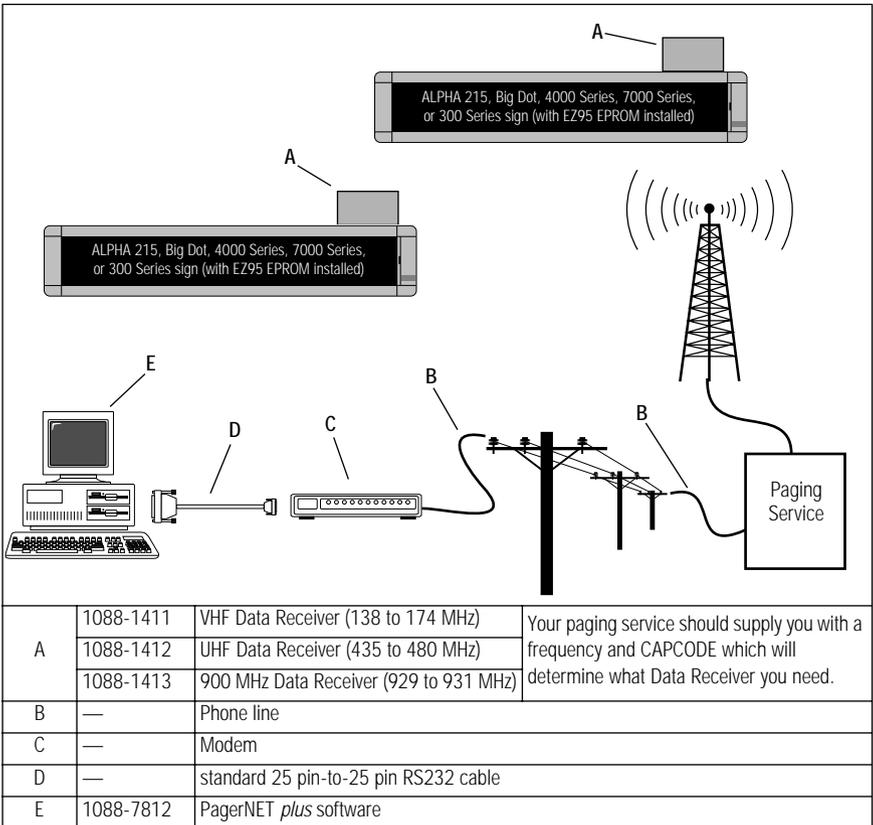
First-time setup

Setting up your modem

Before you can start creating and sending messages, you need to set up your software to operate with the particular modem you're using:

1. With your computer off, attach your modem to one of the computer's serial ports (usually labelled COM1, COM2, etc.)

2. Turn your computer on and start the PagerNET *plus* software.

3. From the *Main Menu*, select *Configuration Setup*. Then select the appropriate serial port and baud rate for your modem:
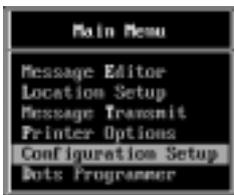
Use the **Up Arrow** and **Down Arrow** keys to highlight *Configuration Setup*. Then press **Enter**.
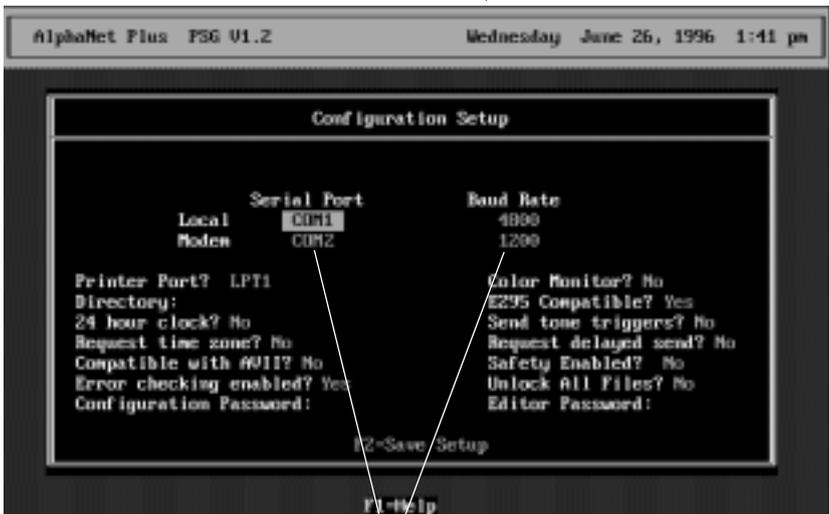
Use the arrow keys to highlight an item. Press **Enter** to select an item to change.

4. Press **F2** to save your changes. Then press **Esc** to exit *Configuration Setup*.

Advanced setup options

In addition to setting up your modem, there are other options you may want to set up, such as a printer port. To do this, see "Configuration Setup" on page 46.

How to send your first message

To show the basics of message editing and transmission, we'll use an example of sending a single message to a single remote sign:

ALPHA sign (with EZ95 EPROM)
with a Data Receiver in **CHICAGO, ILLINOIS**

Paging
Service

PC with a modem running
PagerNET *plus* software in
MADISON, WISCONSIN
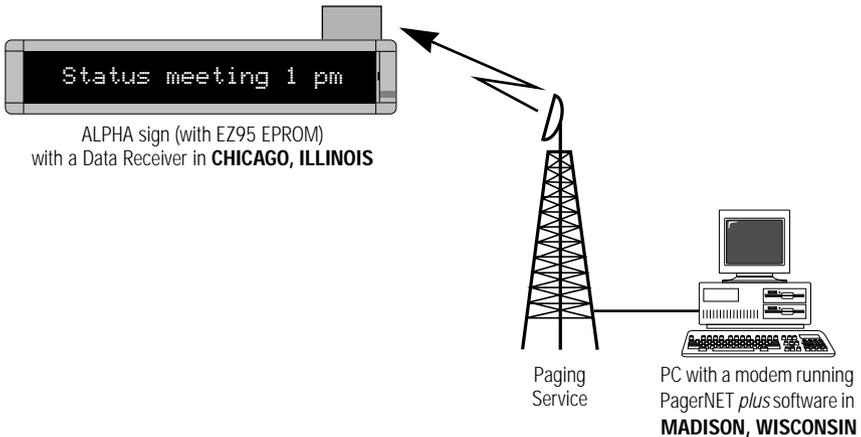
In this example, we'll assume the following information:

The location of the remote sign:	Chicago, Illinois
Telephone number of your pager (and your Data Receiver):	555-1234
Telephone number of your paging service:	1-800-222-5678
The message you want to send:	"Status meeting 1 pm"

You would follow these steps:

Create the message

1. **Complete the "First-time setup" on page 9 if you haven't already done so.**

2. Type in your message using the *Message Editor* in PagerNET *plus.* Select *Message Editor* from the *Main Menu*:

```
         Main Menu
  ┌──────────────────────┐
  │ Message Editor       │
  │ Location Setup       │
  │ Message Transmit     │
  │ Printer Options      │
  │ Configuration Setup  │
  │ Dots Programmer      │
  └──────────────────────┘
```

```
┌──────────────────────────────────────────────────────────────────┐
│ AlphaNet Plus  Editor Poc V1.2        Thursday  June 27, 1996  10:16 am │
│                                                                    │
│                                                                    │
│                     Message Options                                │
│              ┌───────────────────────────┐                         │
│              │ Modify Existing Message    │                        │
│              │ Create New Message         │                        │
│              └───────────────────────────┘                         │
│                                                                    │
│                                                                    │
│                       F1 = HELP                                    │
└──────────────────────────────────────────────────────────────────┘
```
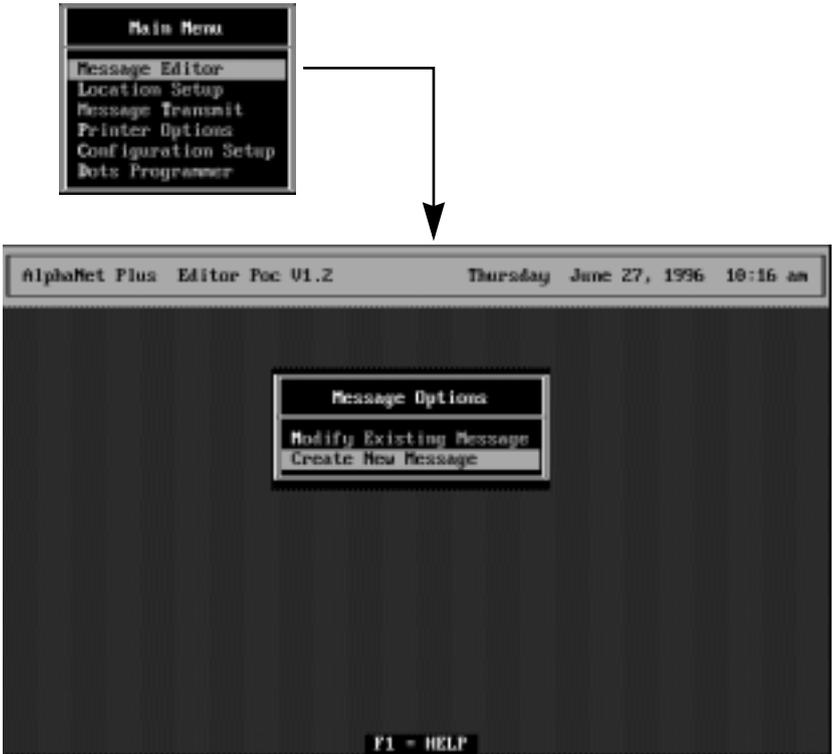
3. After the *Message Editor* window appears, select *Create New Message.* Then type *Status meeting 1 pm*:

```
┌──────────────────────────────────────────────────────────────────┐
│ AlphaNet Plus  Editor Poc V1.2        Thursday  June 27, 1996  10:17 am │
│                                                                    │
│   Modes      Characters      Speeds      Options      Transmit     │
│                                                                    │
│ Status meeting 1 pm_                                               │
│                                                                    │
│                                                                    │
│                                                                    │
│                                                                    │
└──────────────────────────────────────────────────────────────────┘
```
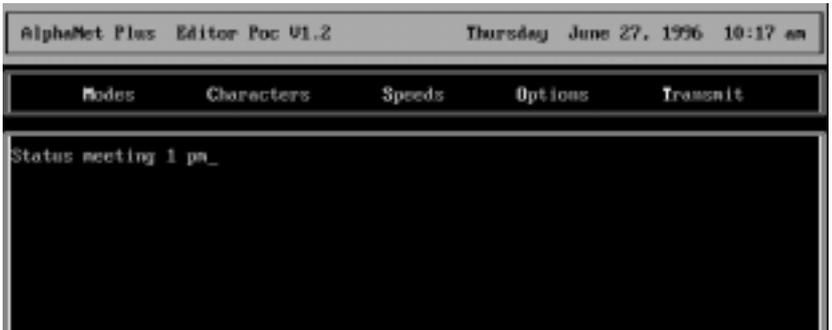
4. Save your message by pressing **Esc** and selecting *Yes* when the *Save Changes* prompt appears:

5. When the following prompt appears, name your message file *STATUS*:
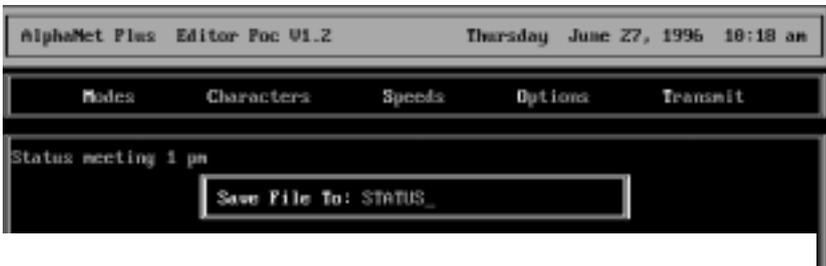
6. After the message is saved, press **Esc** to return to the *Main Menu*:

Create a Location Card

Now you need to tell PagerNET *plus* where to send your message.

7.   Select *Location Setup* from the *Main Menu*:
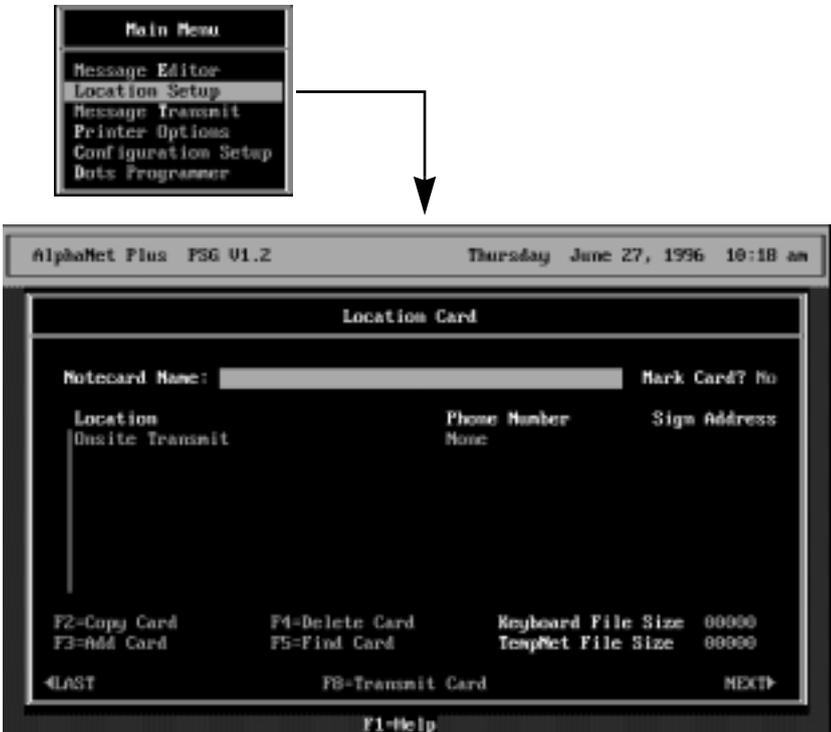
8.   After the *Notecard Name* prompt, type a name—like *WAREHOUSE*—that will be used to identify your remote sign:
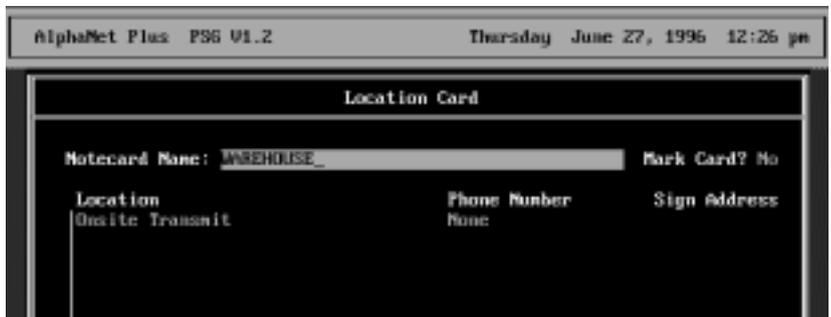
9. Next, press **Insert** to create a blank line under *Location.*
Then press **Enter** and **Insert** again:

Pressing
Enter opens
this window.

Then pressing
Insert opens the
Location prompt.
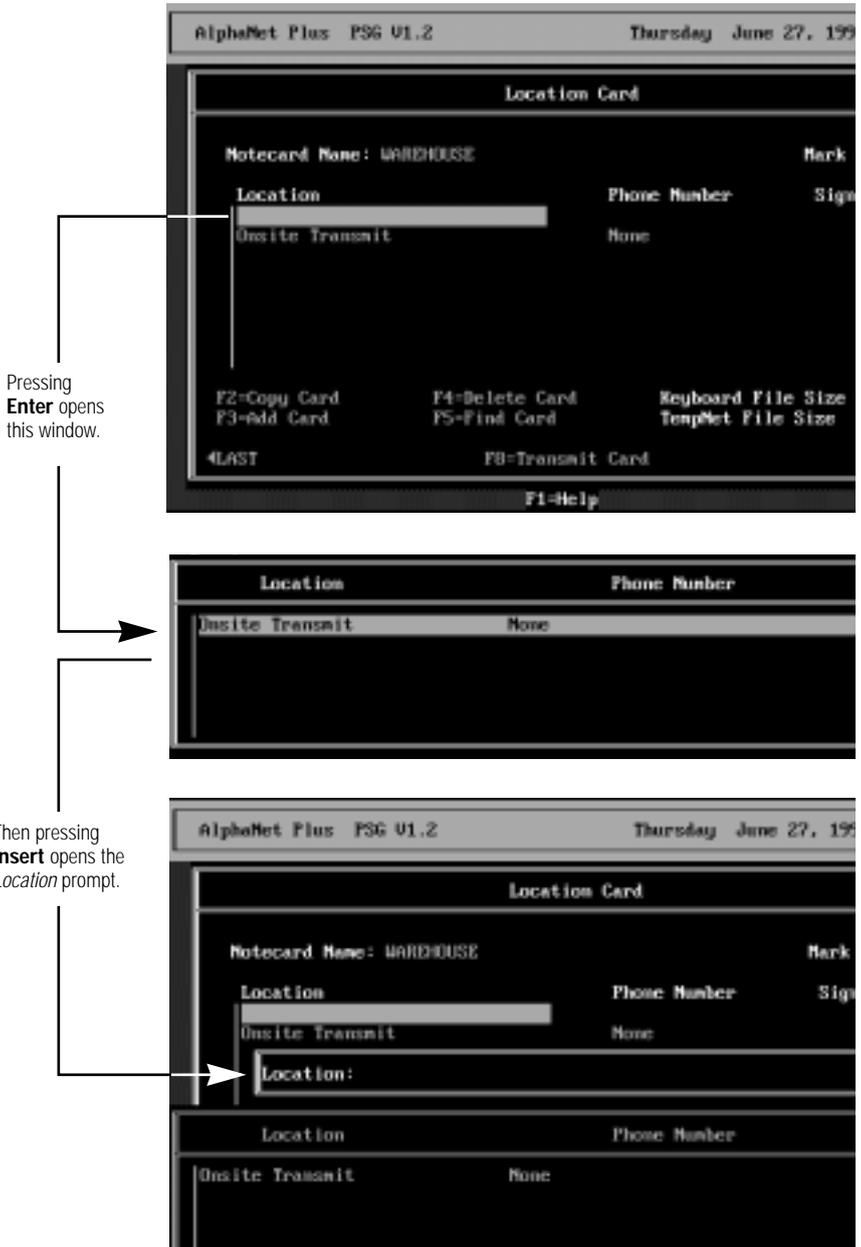
10. Enter the remote sign's location—*Chicago*:
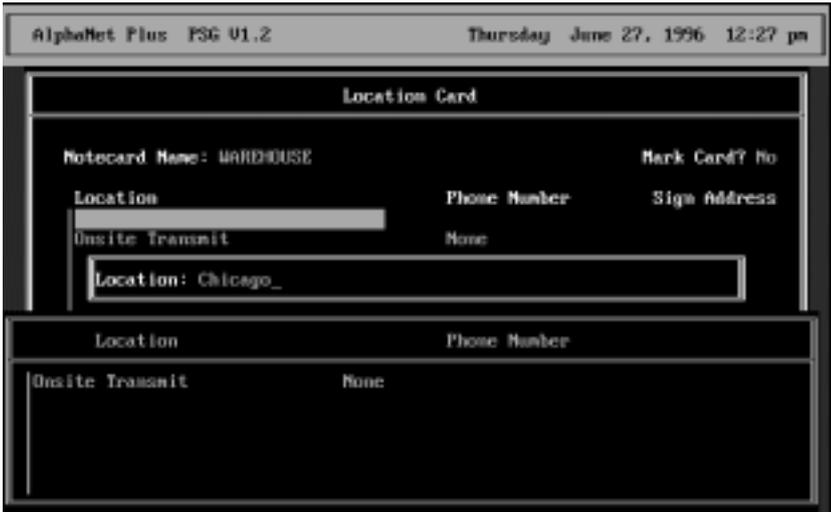
11. After typing the remote sign's location and pressing Enter, type the phone number of the paging service in the special format shown below:
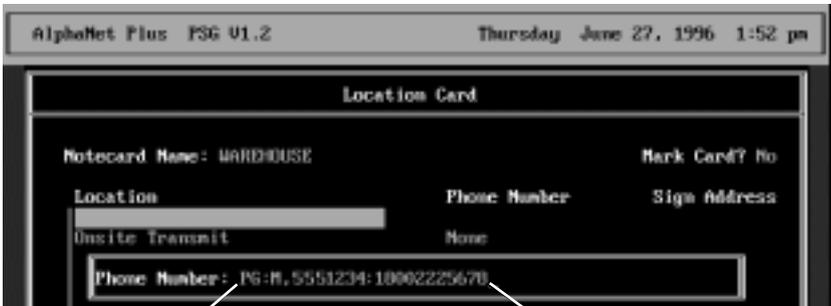
PG:M,5551234:18002225678

Always include this at the start.

Phone number of your pager (and your Data Receiver)

Phone number of your paging service

Use a colon here.

12. After typing the phone number of the paging service and pressing **Enter**, this is what the *Location Card* should look like now:

```
AlphaNet Plus  PSG V1.2                 Thursday  June 27, 1996  1:52 pm

                          Location Card

   Notecard Name: WAREHOUSE                          Mark Card? No

     Location                    Phone Number        Sign Address
     Onsite Transmit             None


      Location                     Phone Number

   Chicago                     PG:M,5551234:18002225678
   Onsite Transmit             None
```

13. Next, with the Chicago location highlighted, press **Enter** to complete the remote sign's *Location Card*:

```
AlphaNet Plus  PSG V1.2                 Thursday  June 27, 1996  1:53 pm

                          Location Card

   Notecard Name: WAREHOUSE                          Mark Card? No

     Location                    Phone Number        Sign Address
     Chicago                     PG:M,5551234...
     Onsite Transmit             None




   F2=Copy Card        F4=Delete Card      Keyboard File Size  00000
   F3=Add Card         F5=Find Card        TempNet File Size   00000
   ◄LAST                    F8=Transmit Card                      NEXT►
                          F1=Help
```

14. Finally, press **Esc** to return to the *Main Menu*.

Transmit the message

Once the message has been created and the location of the sign entered, the message can be transmitted:

15. Select *Message Transmit* from the *Main Menu*:
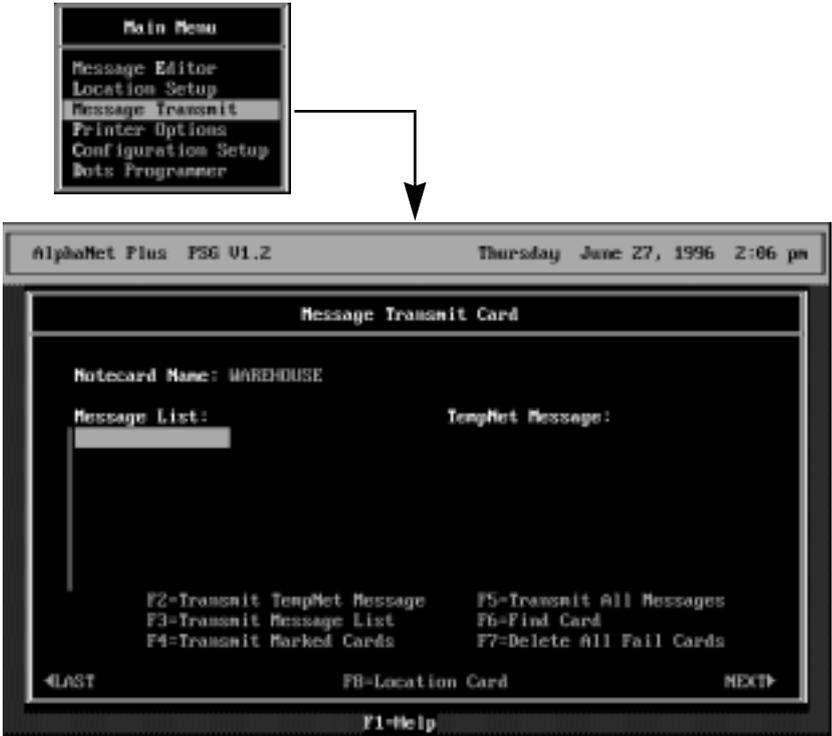
16. Press **Enter** to select a message. Then highlight the message you want to transmit—*STATUS.MSG*—and press **Enter**:

This is the message you just created in the *Message Editor*. (*MSG* is added to the end of all messages.)
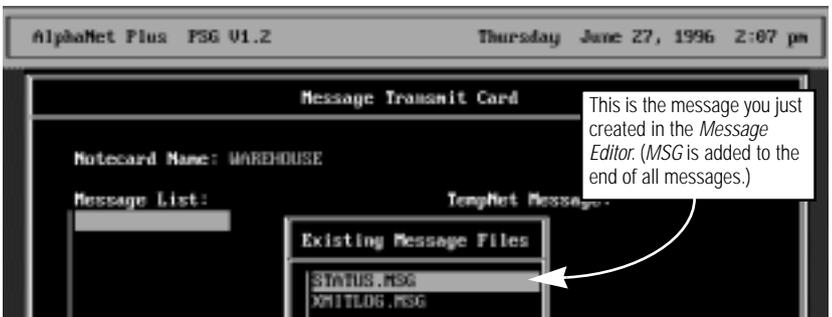
17. Next, type the letter *A* after the *Enter File Letter* prompt and press Enter:

```
AlphaNet Plus  PSG V1.2                    Thursday  June 27, 1996  2:07 pm

                          Message Transmit Card

    Notecard Name: WAREHOUSE

    Message List:                         TempNet Message:
    █████████████

                        Enter File Letter: A_
```

A *file letter* is a letter from A to Z that is "attached" to a message sent to a sign.

The letter represents one of 26 possible locations where a message can be stored in a sign's memory.

File Letter	Message
A	Status meeting 1 pm
B	
C	
.	.
.	.
.	.
Z	

```
Status meeting 1 pm
```

After pressing **Enter**, the following should appear on the *Message Transmit Card*:

```
AlphaNet Plus  PSG V1.2                    Thursday  June 27, 1996  2:07 pm

                          Message Transmit Card

    Notecard Name: WAREHOUSE

    Message List:                         TempNet Message:
    STATUS.MSG.A
```
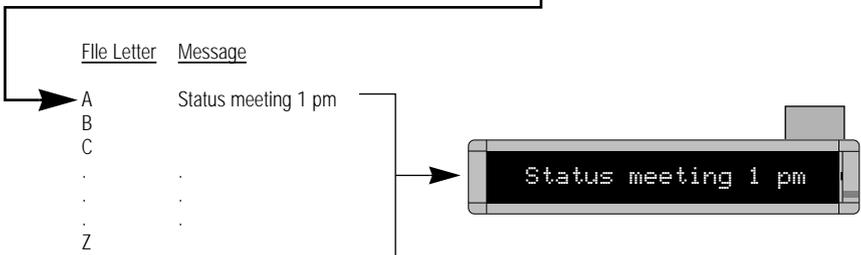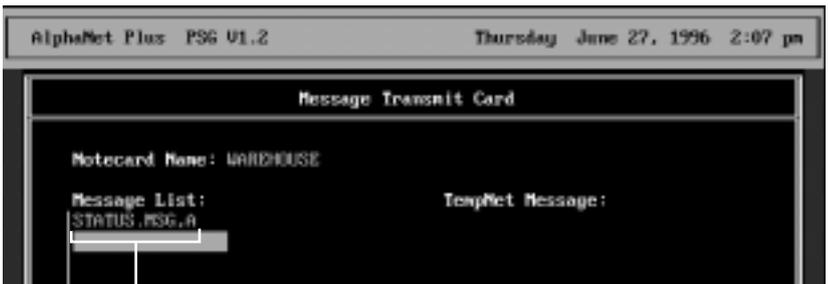
The message name (*STATUS.MSG*) and its location (*A*) in a sign's memory.

18. Other messages could be added to the *Message List*, but in this example, we'll only send one message. To send the messages, press **F3**.

   NOTE: If you selected **Yes** to *Request time zone* in *Configuration Setup* (see "Advanced setup options" on page 10), then the following prompt would appear. A time zone adjustment number from 14 to -14 could be entered:

   ```
   Enter time zone adjust: -1_
   ```

   Also, if you selected **Yes** to *Request delayed send* in Configuration Setup, then the following prompt would appear. A time like *10:30p* could be entered when messages would be transmitted:

   ```
   Enter time to send: _
   ```

   The following will appear as messages are transmitted:

   ```
   Trying to establish connection with modem.
   ```

   The messages will be transmitted to the sign.

   ```
   Transmission Complete.
   --Press <Esc> to continue--
   ```
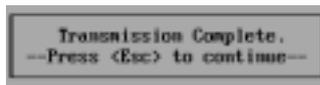
19. Finally, press **Esc** to return to the *Main Menu*.

Advanced message editing

Using Modes

"Modes" are special effects that change the way a message appears on a sign. For example, the *Rotate Mode* moves a message from right to left across a sign. In this example, we'll create a message that displays employee birthdays using the *Hold* and *Rotate Modes*:

In this example, multiple messages will be sent to multiple signs.

2-line ALPHA sign (with EZ95 EPROM) with a Data Receiver in **PORTLAND, MAINE**.

2-line ALPHA sign (with EZ95 EPROM) with a Data Receiver in **DALLAS, TEXAS**.

2-line ALPHA sign (with EZ95 EPROM) with a Data Receiver in **CHICAGO, ILLINOIS**

Paging Service

PC with a modem running PagerNET *plus* software in **MADISON, WISCONSIN**
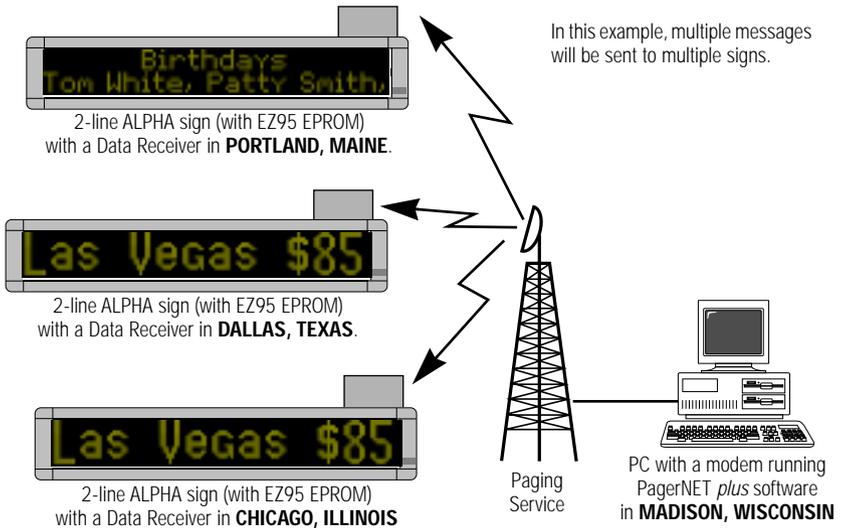
In this example, we'll assume the following information:

The location of the remote signs:	Chicago, Illinois (a Warehouse)
	Dallas, Texas (a Warehouse)
	Portland, Maine (a Sales Office)
Telephone numbers of your three pagers (and your three Data Receivers)	555-1234 (for Chicago sign)
	333-3333 (for Dallas sign)
	234-5555 (for Portland sign)
Telephone number of your paging service:	1-800-222-5678
The messages you want to send:	"Las Vegas $85, Chicago $199, New York $235 (for Chicago and Dallas)
	"Birthdays Tom White, Patty Smith, Bob Evans" (a 2-line message just for Portland)

1. Complete the "First-time setup" on page 9 if you haven't already done so.

2. Select *Message Editor* from the *Main Menu*. When the *Message Editor* window appears, select *Create New Message*:

Advanced message editing: Using Modes
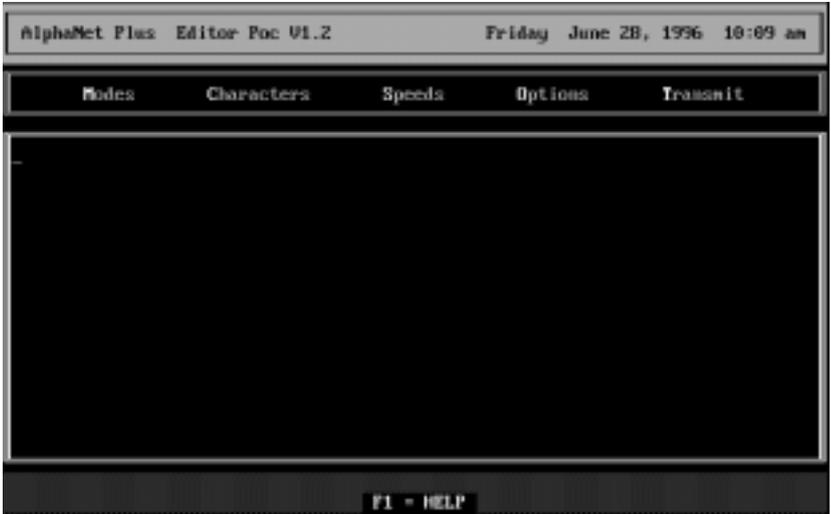
3. Next, hold down **Alt** and then press **M** (for *Modes*). Then highlight *Hold*:

4. After highlighting *Hold*, press **Enter**. Then, in order to put the word *Birthdays* on the top line of the 2-line sign, select *Top Line*:

These are "line positions". A line position is where a message appears on a sign. See "Appendix D: How text is displayed on signs" on page 52 for more details.

This symbol for the *Hold Mode* will appear.
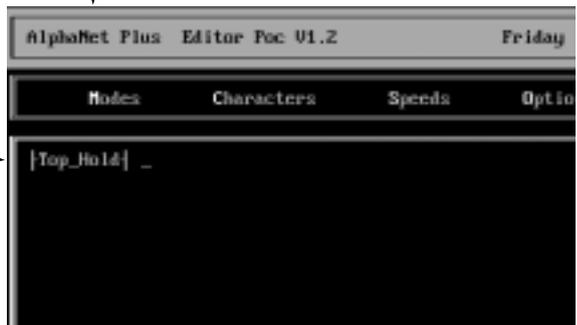
5. After the | *Top Hold* | symbol, type *Birthdays:*

```
AlphaNet Plus  Editor Poc V1.2                Monday  July 1, 1996  10:33

        Modes        Characters        Speeds        Options        Transmit

|Top_Hold| Birthdays_
```
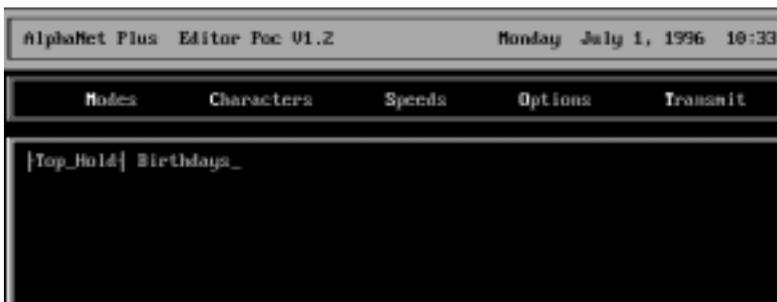
6. Next, hold down **Alt** and then press **M** (for *Modes*). In order to
    make the people's names (*Tom White*, etc.) move across the
    bottom line of the sign, select *Rotate* and *Bottom Line*. Then type
    the three names:

```
A) Automode
B) Flash
C) Hold
D) Interlock              Fill Lines
E) Roll                   Top Line
F) Rotate     ─────▶      Middle Line
G) Roving Dot             Bottom Line
H) Scroll
I) Slide
J) Snow
K) Sparkle
L) Spray
M) Starburst
N) Switch
O) Twinkle
P) Wipe
Q) Condensed Rotate
```

```
AlphaNet Plus  Editor Poc V1.2                Monday  July 1, 1996  10:35 am

        Modes        Characters        Speeds        Options        Transmit

|Top_Hold| Birthdays |Bottom_Rotate| Tom White, Patty Smith, Bob Evans_
```
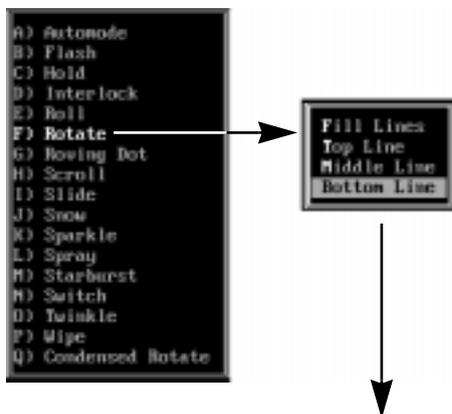
7. Press **Esc** and save this message with the name *BIRTHDAY*:

```
Save File To: BIRTHDAY_
```

Using Characters

"Characters" are options that change the appearance of text in a message. For example, normal-sized text (called *Seven Row*) is seven rows high, but some signs allow you to display much taller text (called *Full Height*).

In this example, we'll create a message that displays airline fares in large text:

1. Complete the "First-time setup" on page 9 if you haven't already done so.

2. Select *Message Editor* from the *Main Menu*. When the *Message Editor* window appears, select *Create New Message*:
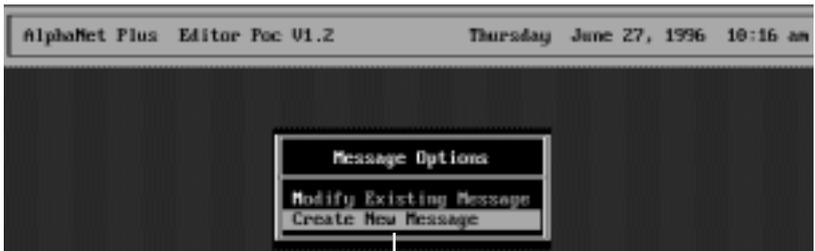
3. Next, hold down **Alt** and then press **M** (for *Modes*). Select *Roll* and then *In.* Finally, select the *Middle Line* position:

Advanced message editing: Using Characters
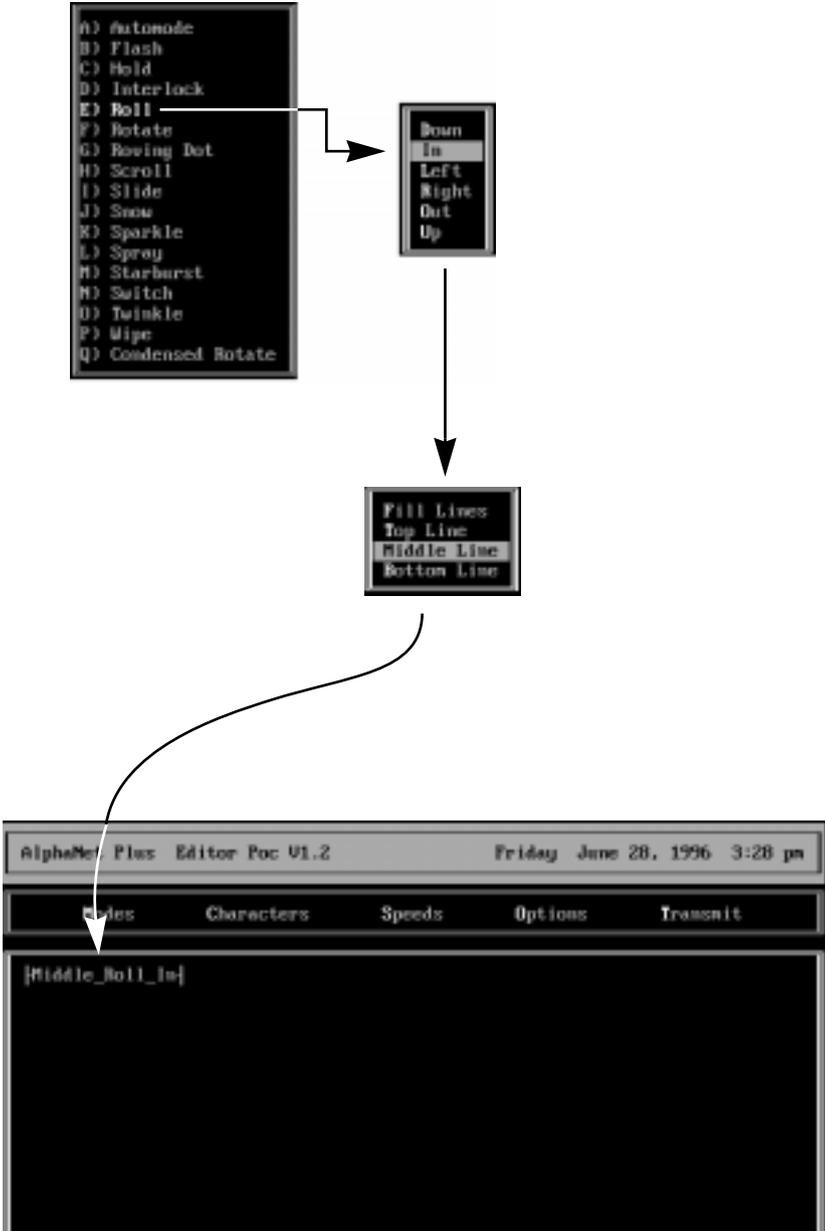
4. **Hold down Alt and then press C (for *Characters*). Select Full Height. Then type *Las Vegas $85, Chicago $199, New York $235*. Press Enter after each line:**

AlphaNet Plus Editor Poc V1.2   Monday July 1, 1996 10:07 am

Modes   Characters   Speeds   Options   Transmit

|Middle_Roll_In| |Full_Height| Las Vegas $85
Chicago $199
New York $235_

||
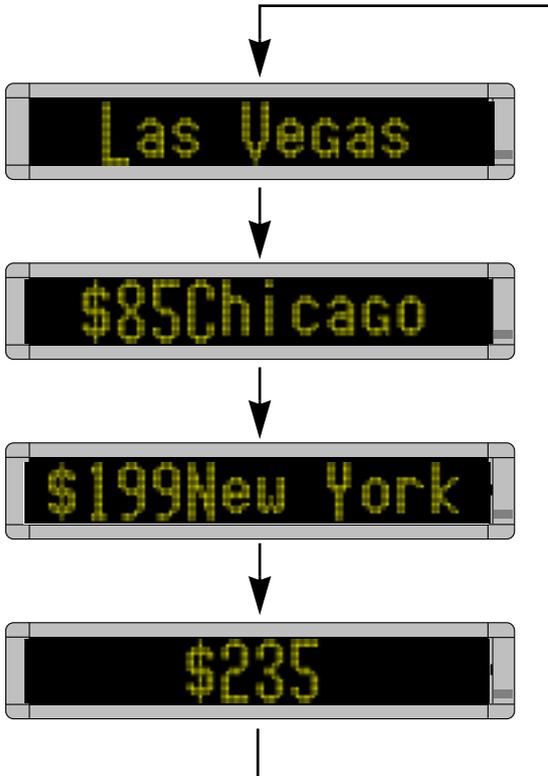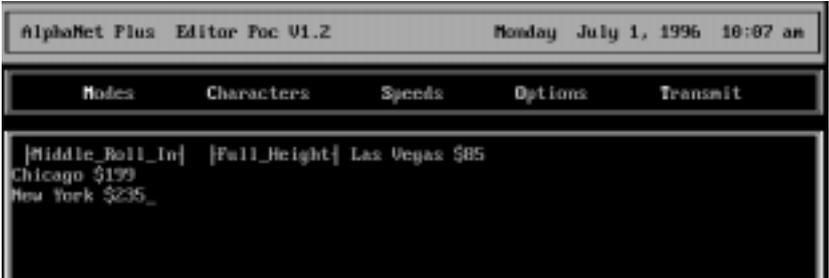
Las Vegas

The text runs together on a sign because *New Lines* (**Alt** + **Enter**) were not used after each line.

$85Chicago

$199New York

$235

5. To format the text so that *Las Vegas $85* and *Chicago $199* and *New York $235* all appear on separate lines, add a *New Line* after each city/amount pair. To do this, position the cursor after *Las Vegas $85*, hold down **Alt** and then press **Enter**. Repeat this after each city.

   NOTE: Just pressing **Enter** after each line will not work.
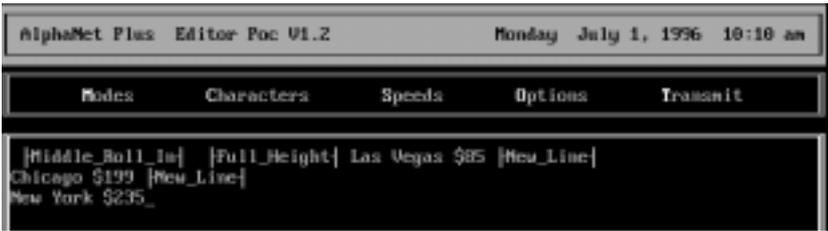
Adding a *New Line* after each line breaks the message into readable pieces.

6. Next, press **Esc** and save the message to a file called *AIRFARES*:

Advanced message editing: Using Characters

Creating Location Cards (Advanced)

We'll use the situation and information from "Using Modes" on page 21 to demonstrate how to transmit two messages to three remote sites.

1. Select *Location Setup* from the *Main Menu.* The WAREHOUSE card should appear because we created it earlier:

```
        Main Menu

   Message Editor
   Location Setup
   Message Transmit
   Printer Options
   Configuration Setup
   Dots Programmer
```

```
AlphaNet Plus  PSG V1.2              Monday  July 1, 1996  11:27 am

                          Location Card

   Notecard Name: WAREHOUSE                       Mark Card? No

   Location                    Phone Number        Sign Address
   Chicago                     PG:M,5551234...
   Onsite Transmit             None

                          ┌──────────────────────────────────────┐
                          │ This WAREHOUSE Location Card and the  │
                          │ Chicago location were created in the previous │
                          │ "Create a Location Card" on page 14.  │
                          └──────────────────────────────────────┘

   F2=Copy Card          F4=Delete Card        Keyboard File Size   00000
   F3=Add Card           F5=Find Card          TempNet File Size    00000
```

2. We'll add the Dallas location first because it's a warehouse (just like Chicago) and belongs in this WAREHOUSE Location Card. To add the Dallas warehouse, first press the **Down Arrow** to highlight Chicago:

```
AlphaNet Plus  PSG V1.2            Thursday  June 27, 1996  1:53 pm

                          Location Card

   Notecard Name: WAREHOUSE                       Mark Card? No

   Location                    Phone Number        Sign Address
   Chicago                     PG:M,5551234...
   Onsite Transmit             None
```

3. Next, press **Insert** to create a blank line above *Chicago.*
   Then press **Enter** and **Insert** again:

Pressing **Enter** opens this window.

Then pressing **Insert** opens the *Location* prompt.

4. After *Location*, type *Dallas*, the remote sign's location:
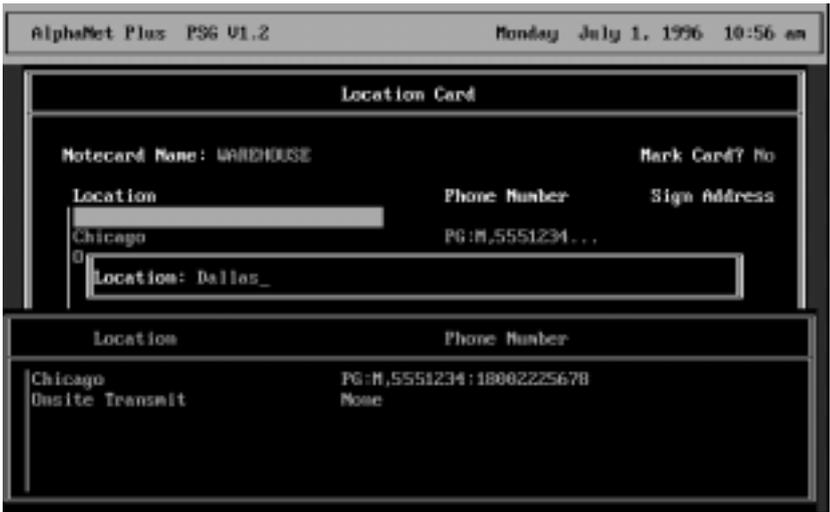
5. After typing *Dallas* and pressing **Enter**, type the phone number of the paging service in the special format shown below:
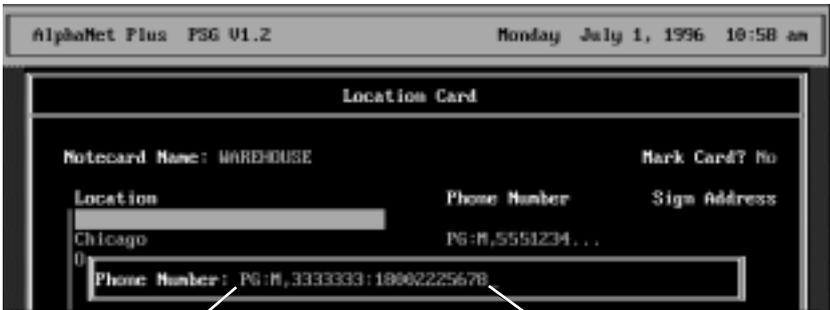
PG:M,3333333:18002225678

| Always include this at the start. | Phone number of the pager (and Data Receiver) in Dallas | Phone number of the paging service |

Use a colon here.

6. After typing the phone number of the paging service and pressing **Enter**, this is what the *WAREHOUSE Location Card* should look like now:
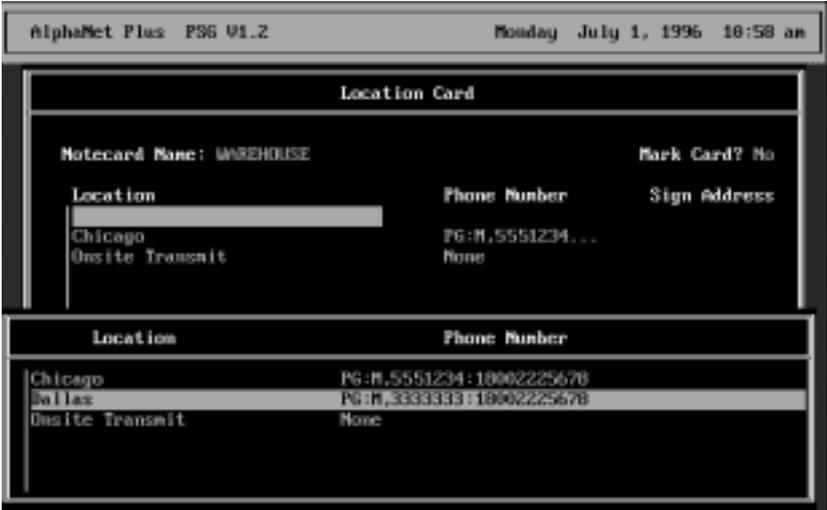
7. With the Dallas location highlighted, press **Enter** to add Dallas to the *WAREHOUSE Location Card*:

8. Next, we'll need to add the Portland location. However, a new *Location Card* should be created because the Portland sign is in a <u>sales office</u> and not a <u>warehouse</u>. (Think of *Location Cards* as a way of organizing or grouping your signs.)

    To create a new *Location Card*, Press **F3**:

```
 AlphaNet Plus  PS6 V1.2                    Monday  July 1, 1996  1:31 pm

                              Location Card

      Notecard Name:                                    Mark Card? No

        Location                     Phone Number       Sign Address




      F2=Copy Card          F4=Delete Card       Keyboard File Size  00000
      F3=Add Card           F5=Find Card         TempNet File Size   00000
      4LAST                      F8=Transmit Card                    NEXT▶
                                   F1=Help
```

To go to the *LAST* or *NEXT Location Card,* hold down
Ctrl and then press **PageUp** or **PageDown**.

9. Use the **Up Arrow** to highlight *Notecard Name*. Then type *SALES*:

```
 AlphaNet Plus  PS6 V1.2                    Monday  July 1, 1996  1:56 pm

                              Location Card

      Notecard Name: SALES_                             Mark Card? No

        Location                     Phone Number       Sign Address
```
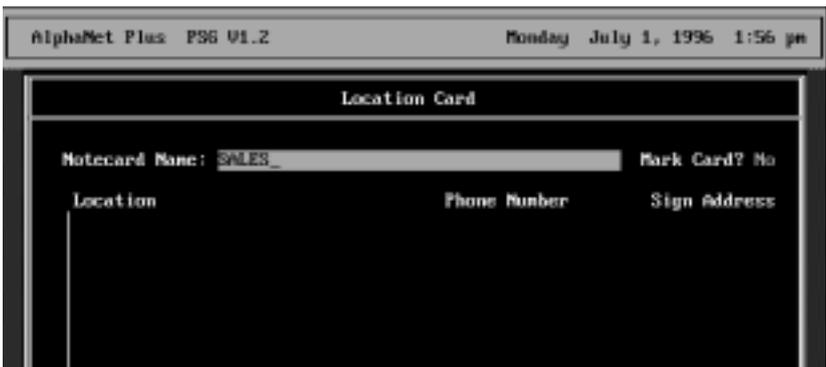
10. Enter the information for the Portland remote site the same way
as you did previously for the Dallas site. When you're done, the
completed *SALES Location Card* should look like this:

```
┌─────────────────────────────────────────────────────────────────┐
│ AlphaNet Plus  PSG V1.2              Monday  July 1, 1996  2:02 pm │
│                                                                     │
│  ┌────────────────────────────────────────────────────────────┐   │
│  │                       Location Card                         │   │
│  │                                                             │   │
│  │   Notecard Name: SALES                        Mark Card? No │   │
│  │                                                             │   │
│  │     Location                   Phone Number    Sign Address │   │
│  │     Portland                   PG:N,2345555... │           │   │
│  │                                                             │   │
│  │                                                             │   │
│  │                                                             │   │
│  │                                                             │   │
│  │                                                             │   │
│  │     F2=Copy Card       F4=Delete Card   Keyboard File Size  00000 │
│  │     F3=Add Card        F5=Find Card     TempNet File Size   00000 │
│  │                                                             │   │
│  │  ◄LAST                 F8=Transmit Card              NEXT►   │   │
│  └────────────────────────────────────────────────────────────┘   │
│                         F1=Help                                    │
└─────────────────────────────────────────────────────────────────┘
```

Transmitting Messages (Advanced)

After creating *Location Cards* for the Dallas and Portland remote sites [see "Creating Location Cards (Advanced)" on page 29], the *BIRTHDAY* and *AIRFARE* messages (see "Using Modes" on page 21 and "Using Characters" on page 25) can be transmitted.

To do this, follow these steps:

1. Select *Message Transmit* from the *Main Menu*:

```
      Main Menu
   Message Editor
   Location Setup
   Message Transmit
   Printer Options
   Configuration Setup
   Dots Programmer
```

```
AlphaNet Plus  PSG V1.2              Thursday  June 27, 1996  2:06 pm

                      Message Transmit Card

     Notecard Name: WAREHOUSE

     Message List:                    TempNet Message:


          F2=Transmit TempNet Message    F5=Transmit All Messages
          F3=Transmit Message List       F6=Find Card
          F4=Transmit Marked Cards       F7=Delete All Fail Cards

   ◄LAST                   F8=Location Card                   NEXT►

                            F1=Help
```

2. Press **Enter** to select a message. Highlight a message you want to transmit, like *AIRFARE.MSG*. Then press **Enter** again:

```
                      Message Transmit Card

     Notecard Name: WAREHOUSE

     Message List:                    TempNet Message:

                         Existing Message Files

                          ▓AIRFARE.MSG
                          BIRTHDAY.MSG
```
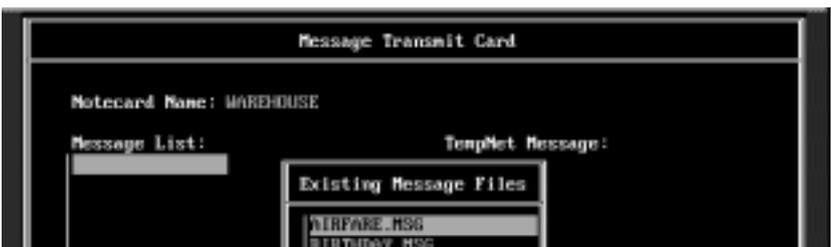
3. **Next, type the letter *A* (or any letter from A to Z) after the *Enter File Letter* prompt and press Enter:**

A *file letter* is a letter from A to Z that is "attached" to a message sent to a sign.

The letter represents one of 26 possible locations where a message can be stored in a sign's memory.

FIle Letter	Message
A	Las Vegas $85, Chicago $199, New York $235
B	
C	
.	.
.	.
.	.
Z	

2-line ALPHA sign (with EZ95 EPROM)
with a Data Receiver
in **CHICAGO, ILLINOIS** and in **DALLAS, TEXAS**
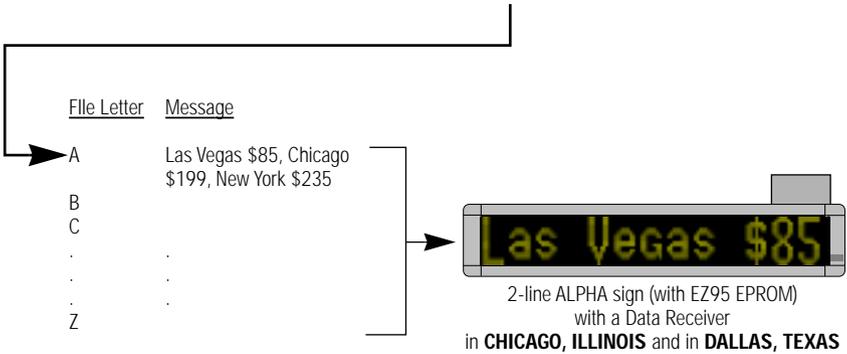
After pressing Enter, the following should appear on the *Message Transmit Card*:

The message name (*AIRFARE.MSG*)
and its location (*A*) in a sign's memory.

4. Imagine you also wanted to send a message called *STATUS* to the WAREHOUSE remote sites (Chicago and Dallas).

To do this, move the highlighted line under *AIRFARE.MSG,A* and press **Enter**. Then select the message *STATUS* from the message list, but this time type *B* after *Enter File Letter*:

```
AlphaNet Plus  PSG V1.2                    Monday   July 1, 1996  3:33 pm

                        Message Transmit Card

     Notecard Name: WAREHOUSE

     Message List:                      TempNet Message:
     AIRFARE.MSG,A

                              Enter File Letter: B_
```

File Letter	Message
A	Las Vegas $85, Chicago $199, New York $235
B	Status meeting 1 pm
C	
.	.
.	.
.	.
Z	

2-line ALPHA sign (with EZ95 EPROM)
with a Data Receiver
in **CHICAGO, ILLINOIS** and in **DALLAS, TEXAS**

After pressing **Enter**, the following should appear on the *Message Transmit Card*:

```
AlphaNet Plus  PSG V1.2                    Monday   July 1, 1996  3:57 pm

                        Message Transmit Card

     Notecard Name: WAREHOUSE

     Message List:                      TempNet Message:
     AIRFARE.MSG,A
     STATUS.MSG,B
```

5. Before transmitting the messages, check to make sure they are going to the right locations. To do this, press **F8** to look at the *WAREHOUSE Location Card*:

```
AlphaNet Plus  PS6 V1.2                    Monday  July 1, 1996  4:52 pm

                              Location Card

  Notecard Name: WAREHOUSE                              Mark Card? No

      Location                     Phone Number      Sign Address
     |Dallas                       PG:N,3333333...
     |Chicago                      PG:N,5551234...
     |Onsite Transmit              None




     F2=Copy Card        F4=Delete Card      Keyboard File Size  00000
     F3=Add Card         F5=Find Card        TempNet File Size   00000
   ◄LAST                 F8=Transmit Card                         NEXT►
                              F1=Help
```

6. Since the locations are correct, press **F8** again to return to the *Message Transmit Card*. Then press **F3** to transmit the two messages in the WAREHOUSE *Message List*.

7. To transmit the *BIRTHDAY* message to the *SALES* site in Portland, hold down **Ctrl** and press either **PageUp** or **PageDown** to go to the *SALES Location Card*:

```
AlphaNet Plus  PS6 V1.2                   Tuesday  July 2, 1996  11:17 am

                         Message Transmit Card

     Notecard Name: SALES

     Message List:                    TempNet Message:
    ┌──────────────┐
    │              │
    │              │
    │              │
    │              │
    │              │
    │              │
             F2=Transmit TempNet Message    F5=Transmit All Messages
             F3=Transmit Message List       F6=Find Card
             F4=Transmit Marked Cards       F7=Delete All Fail Cards
   ◄LAST                  F8=Location Card                      NEXT►
```
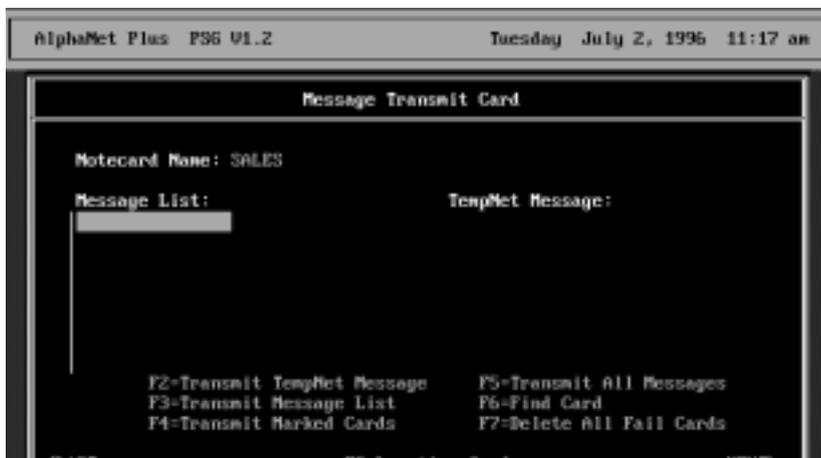
8. Add the *BIRTHDAY* message to the *SALES Message List*. Then press **F3** to transmit the message:

```
AlphaNet Plus  PSG V1.2                    Tuesday  July 2, 1996  11:17 am

                        Message Transmit Card

      Notecard Name: SALES

      Message List:                      TempNet Message:
      BIRTHDAY.MSG.A



                 F2=Transmit TempNet Message    F5=Transmit All Messages
                 F3=Transmit Message List        F6=Find Card
                 F4=Transmit Marked Cards        F7=Delete All Fail Cards
      ◄LAST                    F8=Location Card                     NEXT►

                                F1=Help
```

If you have a lot of messages to send, a fast method of transmitting would be to "mark" the *Location Cards* you'll be using to transmit.

```
AlphaNet Plus  PSG V1.2                    Monday  July 1, 1996  4:52 pm

                          Location Card

      Notecard Name: WAREHOUSE                         Mark Card? No
```

Appendixes

Appendix A: Software quick reference

Main Menu

This is the screen that first appears when PagerNET *plus* is started:

```
AlphaNet Plus  PSG V1.2              Thursday  June 27, 1996  10:40 am



                      ┌─────────────────────┐
                      │      Main Menu      │
                      ├─────────────────────┤
                      │ Message Editor      │────── see page 41
                      │ Location Setup      │────── see page 42
                      │ Message Transmit    │────── see page 44
                      │ Printer Options     │────── see page 45
                      │ Configuration Setup │────── see page 46
                      │ Dots Programmer     │────── see page 47
                      └─────────────────────┘




                              F1-Help
```
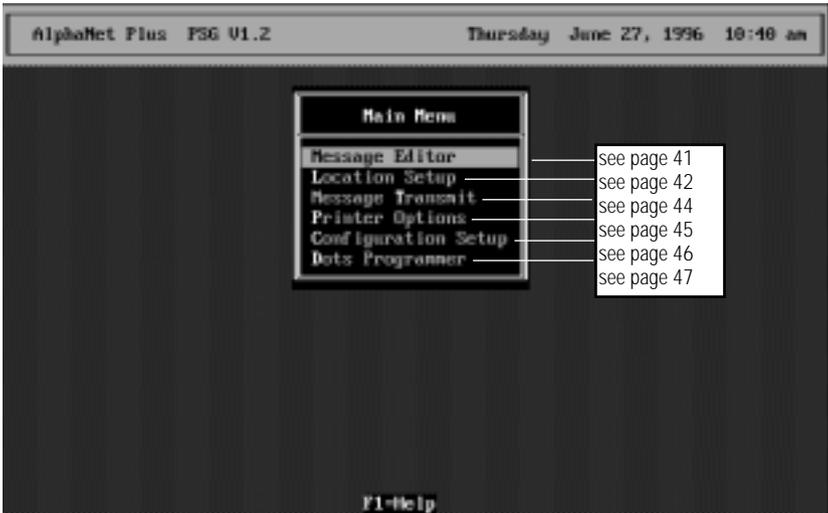
- **Use *Configuration Setup* to do a first-time set up of your PC.**
- **Use *Location Setup* to specify <u>where</u> messages should be sent.**
- **Use *Message Editor* to <u>create</u> messages and to set <u>when</u> they will be sent.**

Message Editor

The *Message Editor* is used to create text messages that will be sent to one or more signs:

Displays a list of messages stored on your hard disk.
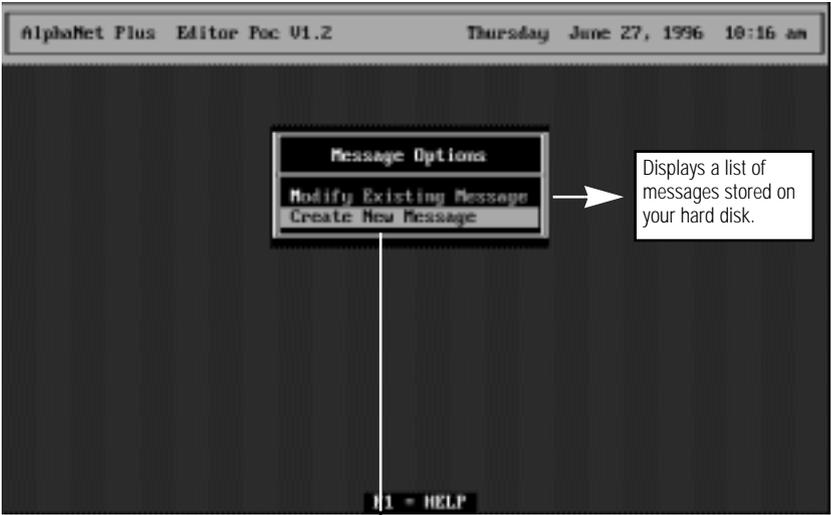
Hold down **Alt** and press the highlighted character (like "M" for *Modes*) to access a menu.

Transmits the message you're currently editing. The message will be sent to any signs attached to the *Local* serial port. (See "Advanced setup options" on page 10.) If you have problems, hold down **Alt** and then press **D**.
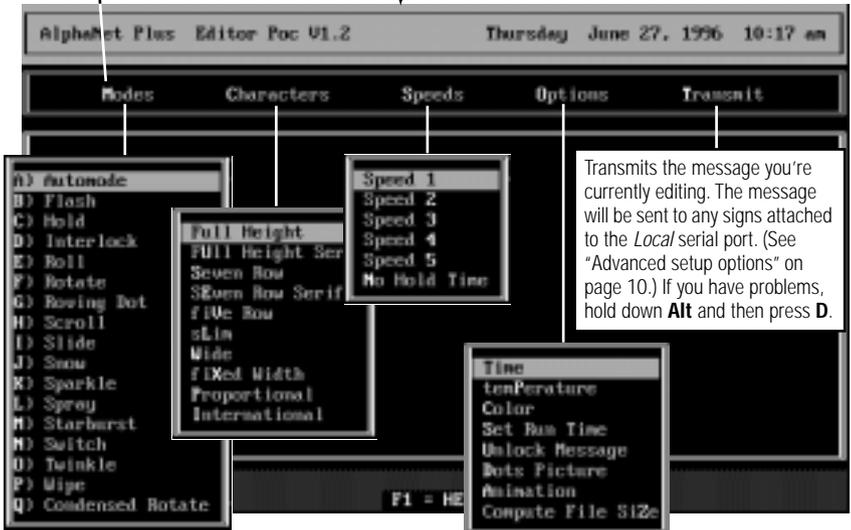
Modes are described in "Appendix B: What Modes are available on signs" on page 48.
Characters, *Speeds*, and *Options* are described in "Appendix C: What Characters, Speeds, Colors, and Options are available on signs" on page 49

Location Setup

This is used to specify one or more places *where* messages can be sent:

```
AlphaNet Plus  PS6 V1.2                    Monday  July 1, 1996  10:58 am
```

```
                          Location Card

A    Notecard Name: WAREHOUSE                        Mark Card? No

        Location                  Phone Number      Sign Address
        Dallas                    PG:M,3333333...
B       Chicago                   PG:M,5551234...
        Onsite Transmit           None




     F2=Copy Card        F4=Delete Card     Keyboard File Size  00000
C    F3=Add Card         F5=Find Card       TempNet File Size   00000

     ◄LAST                   F8=Transmit Card                   NEXT►
                          F1=Help
```

Item	Name	Description
A	Notecard Name	A name used to group <u>where</u> messages are sent into convenient categories. This name appears on a *Location Card* (shown above) and a *Transmit Card.*
	Mark Card?	If you select **Yes**, then you have the ability to transmit messages to all of the locations specified in all the "marked" *Location Cards.*
B	Location	A place where messages are sent.
	Phone Number	The phone number of your paging service in the following format: **PG:M,5551234:18002225678** Always include this at the start. — Telephone number of the Data Receiver connected to a sign — Use a colon here — Phone number of the paging service
	Sign Address	A sign has a feature which allows a unique number or "address" (00 to 99) to be assigned to it. This address permits you to send messages to an individual sign on a network. All signs leave the factory with a default address of 00. To change a sign's address, see *Network Configurations* (part number 9708-8046).
C	F2 - Copy Card	Allows you to duplicate any card.
	F3 - Add Card	Adds a blank card.
	F4 - Delete Card	Deletes the currently displayed card.

C	F5 - Find Card	Displays a menu of all the cards and allows you to select one.
	F8 - Transmit Card	Moves to the *Transmit Card* for the currently displayed *Location Card*.
	Keyboard File Size	Should not be used.
	TempNet File Size	Should not be used.
	LAST	Allows you to move from one *Location Card* to the other by holding **Ctrl** and then pressing either **PageUp** or **PageDown**.
	NEXT	

Message Transmit

This is used to select *what* messages will be send and *where* they will be sent:

Item	Name	Description
A	Notecard Name	A name used to group <u>where</u> messages are sent into convenient categories. This name appears on a *Location Card* and a *Transmit Card* (shown above).
B	Message List	The message files selected for transmission. The maximum number of files per card is 200.
	TempNet Message	Should not be used.
C	F2 - Transmit TempNet Message	Should not be used.
	F3 - Transmit Message List	Sends all the message files in the *Message List*.
	F4 - Transmit Marked Cards	Sends the message files in all the *Location Cards* that have been "marked". (See "Location Setup" on page 42.)
	F5 - Transmit All Messages	Should not be used.
	F6 - Find Card	Displays a menu of all the cards and allows you to select one.
	F7 - Delete All Fail Cards	Deletes any cards created by transmissions that failed. *Fail Cards* are only available if *Error Checking* in selected in *Configuration Setup*. (See "Configuration Setup" on page 46.)
	F8 - Location Card	Moves to the *Location Card* for the currently displayed *Transmit Card*.
	LAST	Allows you to move from one *Transmit Card* to the other by holding **Ctrl** and then pressing either **PageUp** or **PageDown**.
	NEXT	

Printer Options

This allows you to print a message, a *Location Card*, a T*ransmit Card*, or the *Phone Book* (the telephone numbers and locations of all the places where messages can be sent):

NOTE: Before printing, make sure that a printer port has been selected in *Configuration Setup*.

AlphaNet Plus PSG V1.2   Monday July 8, 1996 10:55 am

Main Menu

Message Editor
Location Setup
Message Transmit

Printer Options

Message
Location Card
Transmit Card
Phone Book

Except for *Phone Book*, when you select one of the *Printer Options*, a list of all available files will appear.

Then choose one of these files to print.

To print the *Transmit Log File* (*XMITLOG*), select *Message*.

F1-Help
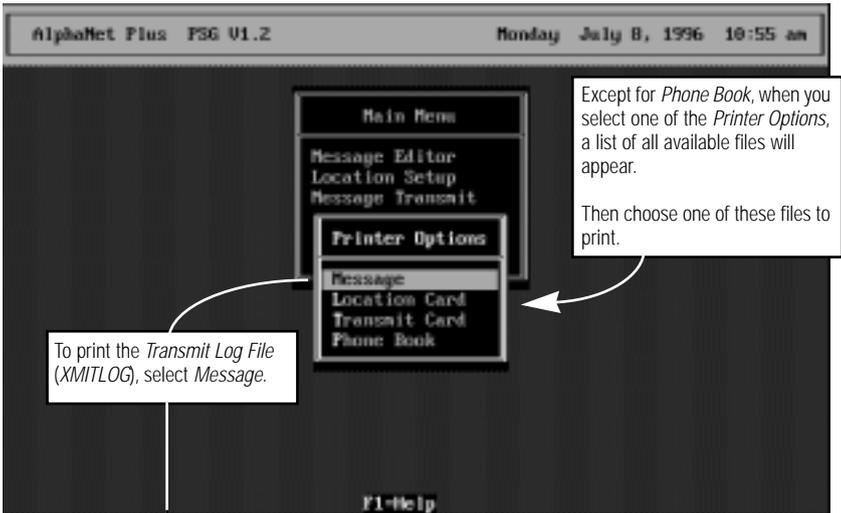
```
 ************** AlphaNet Plus Transmission Log **************

Date: 7/2/1996-12:06:10
Transmission from AlphaNet Plus Editor
File Name: Untitled

---------------------------------------------------------------------------

Date: 7/2/1996-10:54:45
Card Name: SALES
Locations:

    Description:  Portland
    Phone Number: PG:M,7777777:18002225678
    Addresses:

Messages:
          AIRFARE.MSG,A
```

Configuration Setup

This is usually used to specify first-time setup options:

```
AlphaNet Plus  PSG V1.2              Wednesday  June 26, 1996  1:41 pm

                      Configuration Setup


                   Serial Port          Baud Rate
A            Local     COM1                4800
             Modem     COM2                1200

B   Printer Port?  LPT1                Color Monitor?  No
    Directory:                         EZ95 Compatible?  Yes
    24 hour clock?  No                 Send tone triggers?  No
    Request time zone?  No             Request delayed send?  No
    Compatible with AVII?  No          Safety Enabled?  No
    Error checking enabled?  Yes       Unlock All Files?  No
    Configuration Password:            Editor Password:

                        F2=Save Setup


                          F1=Help
```

| Item	Name	Description
A	Local	Set up this port for signs that are directly wired to your PC via a converter box. (See *Network Configurations*, part number 9708-8046, for more detailed information on sign networks.)
	Modem	See "First-time setup" on page 9.
B	Printer Port?	If you have a printer connected to your computer, select the port to which it's attached.
	Directory:	The DOS directory where your messages are kept. To change this to another directory, type the complete DOS path. For example, *c:\pagernet\newdir*.
	24 hour clock?	Selecting **Yes** displays time in 24-hour format (00:00 to 24:00). Selecting **No** displays time in 12-hour format (00:00 to 12:00).
	Request time zone?	Selecting **Yes** displays the *Enter time zone adjust* prompt when messages are sent using *Message Transmit* from the *Main Menu*. This option allows you to adjust for a time zone difference between the location where messages are sent and the location of the sign receiving the messages. For example, if you are sending messages from a PC located in the Eastern Time Zone to a sign located in the Central Time Zone, you would enter a *-1* after the *Enter time zone adjust* prompt. (The range is between 14 and -14.) This is because the Central Time Zone is one hour *behind* the Eastern Time Zone.
	Compatible with AVII?	Select **No** because all the signs you're sending to should have EZ95 EPROMs installed.
	Error checking enabled?	Select **Yes** if you want the PagerNET *plus* software to check if each transmission was received correctly.

B	Configuration Password:	If you enter a password here, you will be required to enter it before accessing *Configuration Setup*. A password can have up to eight characters.
	Color Monitor?	Select **Yes** if you're using a color monitor. Select **No** if you're using a black and white monitor.
	EZ95 Compatible?	Select **Yes** because all the signs you're sending to should have EZ95 EPROMs installed.
	Send tone triggers?	Select **Yes** if you want a sign to beep each time it receives a new message.
	Request delayed send?	Selecting **Yes** displays the *Enter time to send* prompt when messages are sent using *Message Transmit* from the *Main Menu*. This is useful for sending messages when you're not at your computer. For example, if you need to send messages at 11:30 pm at night, then you would enter *11:30pm* after the *Enter time to send* prompt.
	Safety Enabled?	Select **No**.
	Unlock All Files?	Selecting **Yes** permits anyone using an Infrared Keyboard to change messages that you send to a sign. Selecting **No** only permits messages to be changed by using the PagerNET *plus* software.
	Editor Password:	If you enter a password here, you will be required to enter it before accessing the *Message Editor*. A password can have up to eight characters.

Dots Programmer

This option allows you to create bitmapped images that can be sent and then displayed on a sign. However, since these images can <u>not</u> be sent to signs using paging receivers, the *Dots Programmer* should not be used.

Appendix B: What Modes are available on signs

"Modes" are special effects used by the PagerNET *plus* software to change the way text appears on a sign. *Modes* are added to a message using the *Message Editor*:
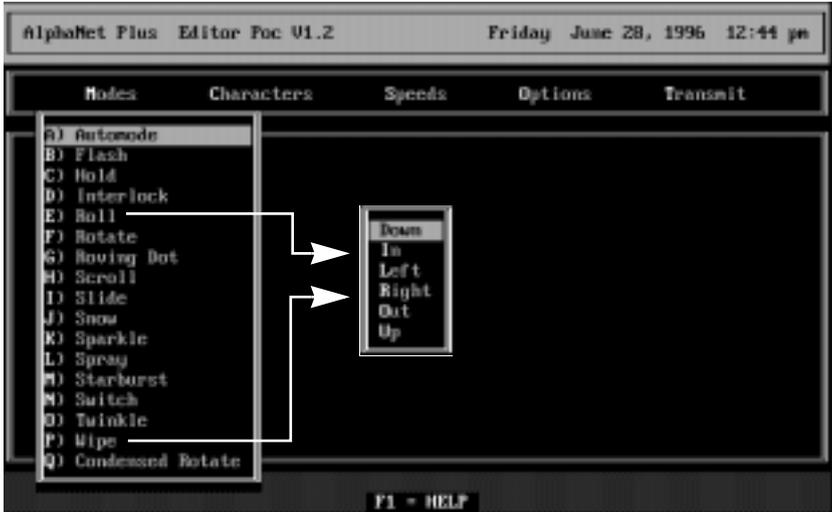
Modes available on signs

Sign	Automode	Flash	Hold	Interlock	Roll	Rotate	Roving Dot	Scroll	Slide	Snow	Sparkle	Spray	Starburst	Switch	Twinkle	Wipe	Cond. Rotate
200 Series	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●
300 Series	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●
4000 Series	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	
7000 Series	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	
Big Dot	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●
AlphaVision (Full Matrix)	●	●	●	●	●	●		●			●				●	●	
AlphaVision (Char. Matrix)	●	●	●			●										●	
790i	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	

Appendix C: What Characters, Speeds, Colors, and Options are available on signs

PagerNET *plus* software allows you to change the character shapes and colors of text used in sign messages. The *Characters* and *Color* options are available in the *Message Editor*. Also, the speed of a moving message can be set using the *Speeds* option. Finally, several choices in *Options* are available on signs:

Characters and Speeds
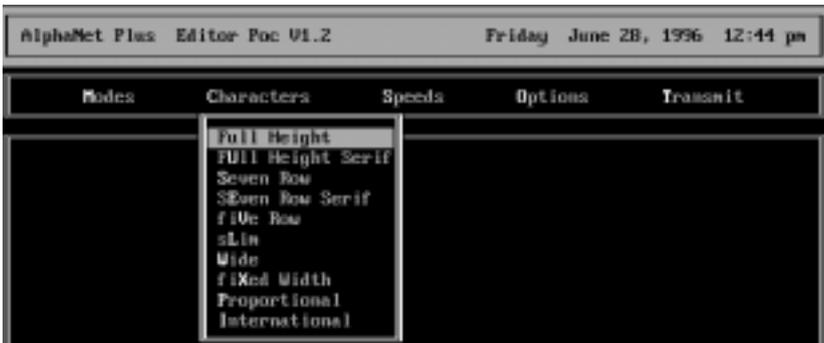
Characters and Speeds available on signs

| Sign	Characters									Speeds
	Full Height	Full Height Serif	Seven Row	Seven Row Serif	Five Row	Slim	Wide	Fixed Width	Proportional	
200 Series			●	●	●	●	●	●	●	●
300 Series			●	●	●	●	●	●	●	●
4000 Series	●	●	●	●	●	●	●	●	●	●
7000 Series	●	●	●	●	●	●	●	●	●	●
Big Dot			●	●	●	●	●	●	●	●
AlphaVision (Full Matrix)	●	●	●	●	●	●	●	●	●	●
AlphaVision (Char. Matrix)			●		●	●				●
790i			●		●	●	●	●	●	●

International characters

International characters can be used in messages by selecting *International* **from the** *Characters* **menu:**

Base Characters:

A	C	E	I	N	O	U	Y	?	!	$
â	Ç	é	ï	ñ	ô	ü	ÿ	¿	¡	¢
ä	ç	ê	î	Ñ	ö	û	Y	?	!	£
å	C	ë	ì	N	ò	Ü	y			¥
Ä	c	è	I	n	Ö	ú				ƒ
Å		É	i		ó	U				$
æ		E			o̲	u				
Æ		e			O					
á					o					
a̲										
A										
a										

Color and Options

Text can be colored by selecting *Options* in the *Message Editor*:
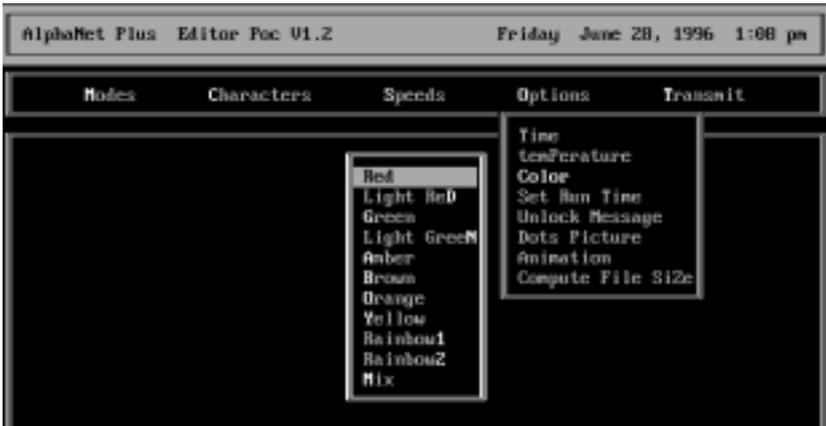
Colors and Options available on signs

| Sign	Options							
	Time	Temperature	Color (see NOTE)	Set Run Time	Unlock Message	Dots Picture	Animation	Compute File Size
200 Series	●		8	●	●			
300 Series	●		8	●	●			
4000 Series	●		3	●	●	Though these two options are available, they should not be used with PagerNET *plus* software because of the nature of paged messages.		This merely computes the size of the current message in bytes.
7000 Series	●		3	●	●			
Big Dot	●		8	●	●			
AlphaVision (Full Matrix)	●		3	●	●			
AlphaVision (Char. Matrix)	●		3	●	●			
790i	●	●	3	●	●			

NOTE: Sign names ending in "C", such as 4120C, have color capabilities. Sign names ending in "R", such as 4120R, can display in red only.

Appendix D: How text is displayed on signs

Columns and rows make up a sign

Each sign is made up of a display area of columns and rows of LED "pixels" that can be turned on or off and that can display different colors (for color-capable signs).

**For example, a 4120C (or 4120R) sign has a total display area of 120 x 16:**

Columns = 120

Rows = 16
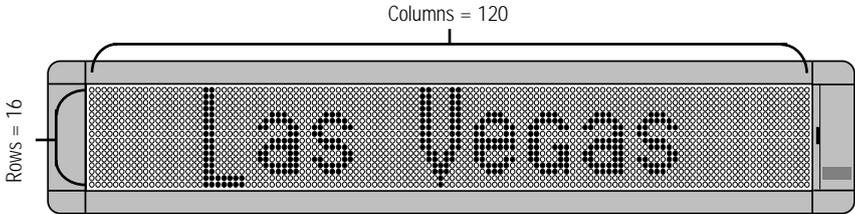
The number of columns and rows in signs.

Sign		Display area (col x rows)	Colors
BETA-BRITE Series	BETA-BRITE	80 x 7	
	BETA-BRITE BIG DOT	80 x 7	
	ALPHA Big Dot	80 x 7	8
215 Series	215	90 x 7	
	215C	90 x 7	
300 Series	320C	120 x 7	
	330C	180 x 7	
4000 Series	4120R	120 x 16	
	4120C	120 x 16	
	4160R	160 x 16	
	4160C	160 x 16	
	4200R	200 x 16	
	4200C	200 x 16	
	4240R	240 x 16	3
	4240C	240 x 16	
7000 Series	7120C	120 x 24	
	7160C	160 x 24	
	7200C	200 x 24	
Outdoor displays	790i	90 x 7	
ALPHAVISION	Display areas from 128 x 32 to 256 x 128.		
NOTE: Sign names ending in "C", such as 4120C, have color capabilities. Sign names ending in "R", such as 4120R, can display in red only.			

Text comes in three basic sizes

The *Characters* menu in the *Message Editor* displays a list of the available text sizes, such as *Full Height* and *Five Row*, and options such as *Wide* and *Fixed Width*:

Using the three basic text sizes, the message *Las Vegas $85, Chicago $199* would appear like this on a two-line 4120C (or 4120R):

- *Full Height* (which includes *Full Height Serif*)
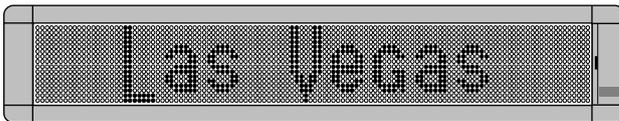
- *Seven Row* (which includes *Seven Row Serif*), and
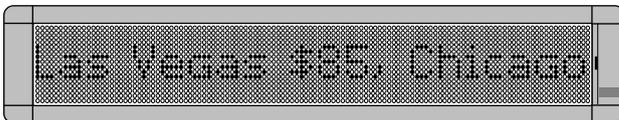
- *Five Row*
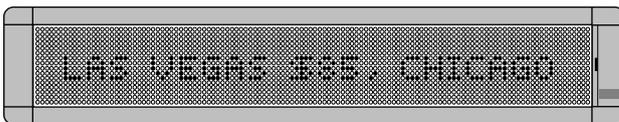
Understanding message line positions (Top, Middle, Bottom, Fill)

Line positions let you display a message in the *Top*, *Middle*, *Bottom*, and *Fill* areas on all ALPHA two-line signs:

	How the message appears in the Message Editor:	**How the message appears on a 2-line sign:**
Top:	| Top_Automode | Las Vegas $85, Chicago $199, New York $235	
Middle:	| Middle_Automode | Las Vegas $85, Chicago $199, New York $235	
Bottom:	| Bottom_Automode | Las Vegas $85, Chicago $199, New York $235	
Fill:	| Fill_Automode | Las Vegas $85, Chicago $199, New York $235	

When you use the **Fill** position, the sign will try to fill both lines with the message.