Director Sign User Manual

The most recent update of this manual can be found at Adaptive's Web site: http://www.adaptivedisplays.com
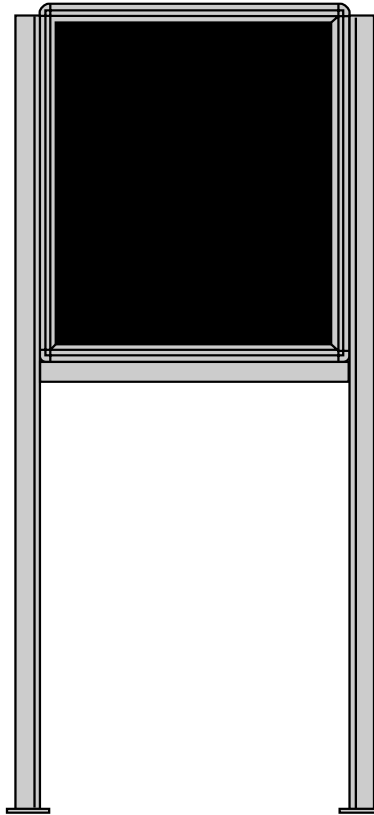
Manual part number: 9702-2005B

Revision date: 10/27/03

ADAPTIVE®

Adaptive Micro Systems LLC

Contents

Warranty

Adaptive Micro Systems, LLC. warrants to the original purchaser that the sign, keyboard, and power supply will be free of defects in workmanship and materials for a period of one year from the date of purchase.

Adaptive Micro Systems, LLC. will without charge, repair or replace, at its option, defective product or component parts upon delivery to the factory service department accompanied by proof of the date of purchase in the form of a sales receipt.

This warranty does not apply in the event of any misuse or abuse of the product, or as a result of any unauthorized repairs or alterations. This warranty does not apply if the serial number is altered, defaced or removed from the sign. Incandescent lamps used in incandescent products are not covered by this warranty.

The purchase price of this product does not include, from Adaptive Micro Systems, LLC, any on-site support, service or maintenance.

Local ordinances prohibiting the use of flashing signs may exist in some locations. Compliance with local ordinances is the sole responsibility of the customer.

To obtain warranty coverage, this product must be registered. Please complete the enclosed warranty registration card and mail it to Adaptive Micro Systems, LLC.

How to obtain warranty service

Contact the distributor from whom the sign was purchased. If you do not know where the product was purchased, contact Adaptive Micro Systems Customer Service at 414-357-2020.

1—Introduction

Purpose

This manual is intended as a guide for installation and setup of a Director sign, as well as for basic sign operation and text messaging.

Revision history

Revision	Date	Notes
9704-3006	08/26/1998	Installation and setup manual for wood Director only
9702-2005	11/15/2001	Installation and setup manual for aluminum Director only
9702-2005A	04/15/2002	Installation and setup manual for wood **and** aluminum Director
9702-2005**B**	10/27/03	Updates made to Adaptive's logo and trademark information.

Related documentation

Technical documentation can be found at Adaptive's Web site: http://www.adaptivedisplays.com.

Part #	Manual title	Description
9700-0112	Networking Alpha Signs	Describes how to network standard product Alpha signs.
9701-0202	Messaging Software User Manual	Provides step-by-step examples on how to use the Alpha Messaging Software Director Edition.
9707-1003	IR Message Loader Instructions	Explains how to use the Infrared Message Loader to transfer messages between display signs and PCs.
TechMemo 00-0005	Preventing Electrostatic Discharge (ESD) Damage	Describes grounding practices and provides work area guidelines when working on signs.

Preventing electrostatic discharge damage

ATTENTION
OBSERVE PRECAUTIONS
ELECTROSTATIC
SENSITIVE DEVICE

This equipment contains components that may be damaged by "static electricity", or electrostatic discharge. To prevent this from happening, be sure to follow the guidelines in Adaptive Tech Memo 00-0005, *"Preventing Electrostatic Discharge (ESD) Damage,"* available on our Web site at http://www.adaptivedisplays.com.

Safety information

Equipment symbols

Chassis ground

Warnings and cautions
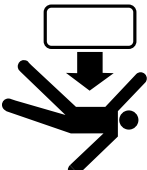
⚠ WARNING

Possible fire hazard. Always mount unit indoors. Mounting the unit outdoors may cause a fire which could result in serious injury or death.

SM1007A

⚠ WARNING

Possible shock hazard. Always mount unit indoors. Mounting a unit outdoors makes the unit a possible source of electric shock which could result in serious injury or death.

SM1001A

⚠ WARNING

Hazardous voltage. Contact with high voltage may cause death or serious injury. Always disconnect power to unit prior to servicing.

SM1000A

⚠ WARNING

No circuit breaker or switch in sign. Contact with high voltage may cause death or serious injury. Always disconnect all power to sign prior to servicing.

SM1010

⚠ AVERTISSEMENT

COURANT DE FUITE ELEVE. Raccordement a la terre indispensable avant le raccordement au reseau.

⚠ WARNING

HIGH LEAKAGE CURRENT. Earth connection essential before connecting supply.

SM1009A

⚠ WARNING

Possible crush hazard. Mounting system must be able to safely support the unit's weight. Otherwise the unit may fall, causing serious injury or death.

SM1014

⚠ WARNING

Fasten sign to floor. Otherwise sign may tip over causing serious injury or death.

SM1008A

1—Introduction

2—Equipment overview

The Director sign is an indoor LED sign that comes in either a wood or aluminum case. The sign can display up to eight 16-character (aluminum or wood) or 24-character (aluminum only) rows of text. The sign is capable of storing up to 26 screens of text information.

The sign can either be hung from a wall or mounted on a stand. An optional brochure rack can be used with the wood Director.

The power receptacle must be installed near the equipment and easily accessible.

Wood case

Front and back view (without stand)

Front view (with stand)

Front view (with stand and brochure rack)

Side view (with stand and brochure rack)

Aluminum case

Front and back view (without stand)

Front view (stand)

Side view (with stand)
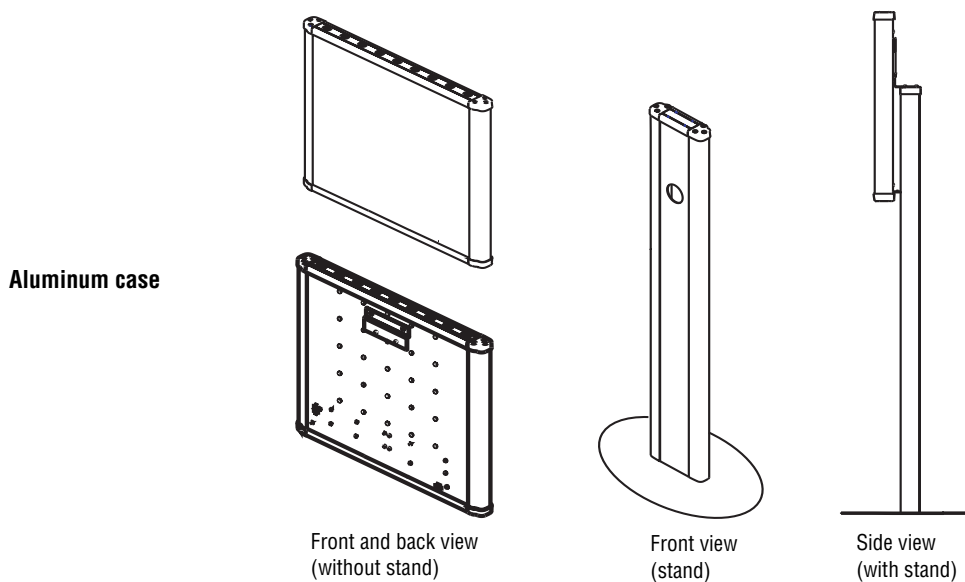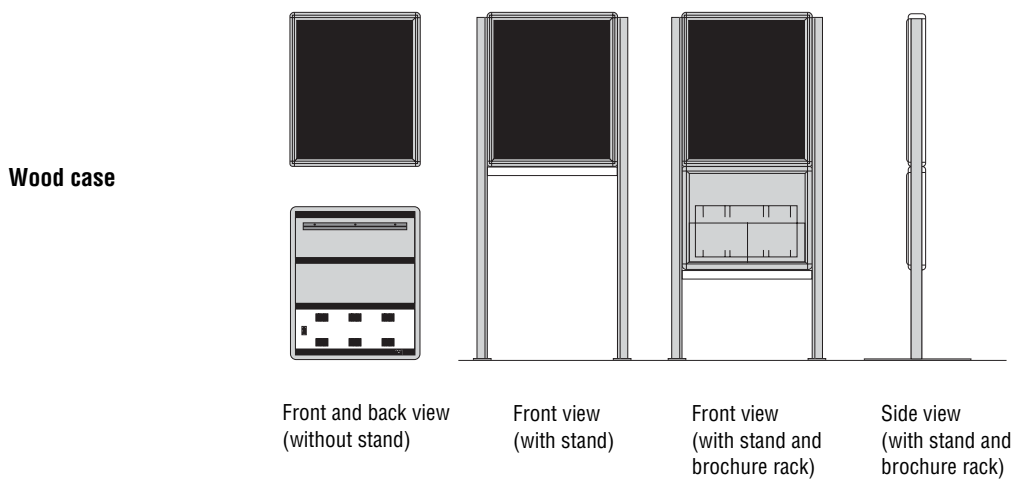
Technical specifications

Wood case

Item	Sign	Description
Power	16 character	120/230 VAC, 150 W
Dimensions (inches)	16 character	22.5L x 3.12D x 27H (57.2 x 7.9D x 68.6H cm)
Weight (without stand)	16 character	31.1 lbs. (14.1 kg)
Weight (with brochure rack and stand)	16 character	58.7 lbs. (26.6 kg)

Aluminum case

Item	Sign	Description
Power	16 character	100/240 VAC, 3.5 A, 50/60 Hz
	24 character	
Dimensions	16 character	25.45L x 2.82D x 27.49H (64.6L x 7.2D x 69.8H cm)
	24 character	35.03L x 2.82D x 27.49H (89.0L x 7.2D x 69.8H cm)
Weight (without stand)	16 character	*30 lbs. (13.6 kg)
	24 character	*40 lbs. (18.1 kg)
Weight (with stand)	16 character	*85 lbs. (38.6 kg)
	24 character	*95 lbs. (43.1 kg)
*Approximate		

EMI compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designated to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

3—Sign installation and setup

For more information on networking signs, see "Connecting signs to a computer" on page 23. For detailed information, see the **Networking Alpha Signs** manual, pn 9700-0112.

<div align="center">

⚠ **WARNING**

Hazardous voltage.
Contact with high voltage
may cause death or serious
injury.
Always disconnect power to
unit prior to servicing. SM1000A

</div>

<div align="center">

⚠**WARNING**

Fasten sign to floor.
Otherwise sign may tip over
causing serious injury
or death.

SM1008A

</div>

<div align="center">

⚠ **WARNING**

Remove sign from wall
or stand before servicing.
Otherwise, sign may fall or tip
over causing serious injury.

SM1011

</div>
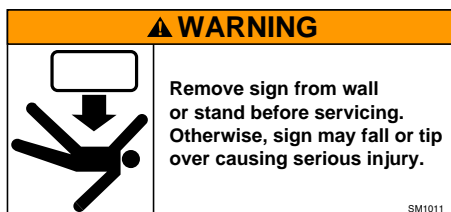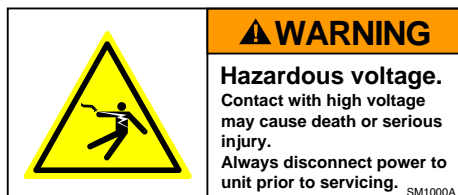
NOTE: Do not use the Director outdoors because water and dust will damage the sign.

NOTE: Because of its weight, the Director should be assembled by two people.

Mounting the wood Director

Wall mounting

1. Make sure a wall mounting bracket is attached to the back of the sign.

This bottom panel flips open to expose the RS232/RS485 jacks, which are used to connect the sign to a computer or a network of signs.

Wall mounting bracket (factory installed)
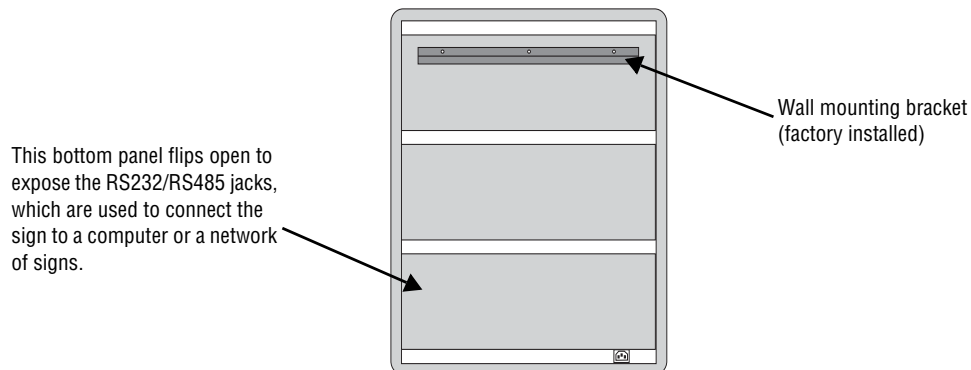
2. Attach the wall mounting bracket (supplied) to a wall. Then hang the sign from this bracket.

   NOTE: Only hang this sign from a wall capable of supporting 116 pounds (52.5 kg).

Attach a wall mounting bracket to a wall.

To mount the sign, interlock the two brackets.
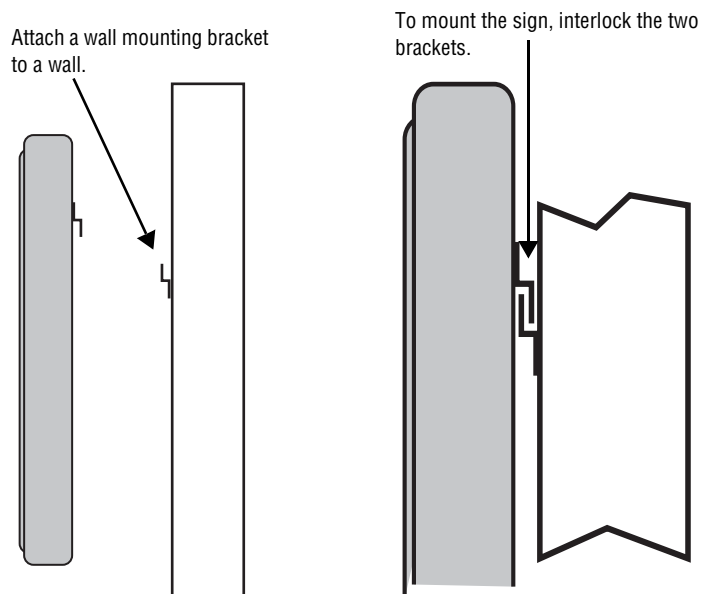
3. Route the power cord from the sign in such a way that the cord is not in an area where people will be walking.

Stand mounting (without brochure rack)

1. Remove the caps from the top of each mounting pole.

Remove each end
cap by unfastening
the two screws
that hold each cap.

Mounting poles

2. Place both mounting poles on a flat surface. Slide the crossbar down the channels on the mounting poles. Then slide a safety stop down each channel.

Safety stops

Crossbar

3. Fasten the crossbar to each mounting pole with the four set screws. Then fasten each safety stop with the two sets of screws.

Safety stop

Crossbar

Fasten each safety stop with two screws.

25.5 inches (63.5 cm)

Fasten with two screws on each side.

Mounting notch—line up the bottom of the crossbar with this notch.

NOTE: Screws should be securely tightened (18- to 20-inch/pounds of torque recommended).

4. Place each of the sign's mounting brackets in a channel on each mounting pole. Then slide the sign down until it rests on the safety stops. Finally, reattach the end caps to the tops of the mounting poles.

End caps

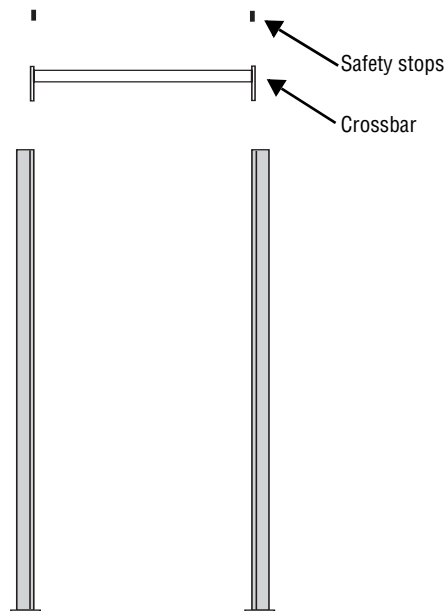5. Fasten the sign to the floor using four bolts or screws (not provided) in the locations shown below.

Top view of sign

6. Route the power cord from the sign in such a way that the cord is not in an area where people will be walking.
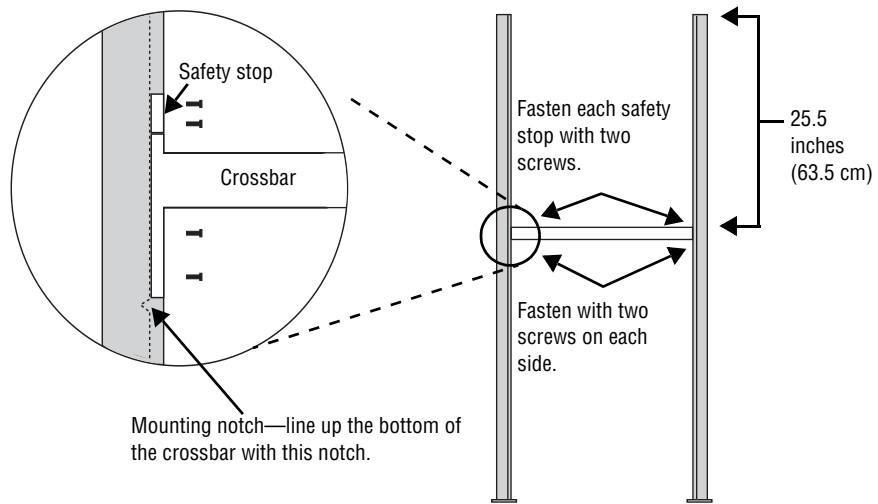
Run the power cord along one of the mounting poles.

Use the supplied cable ties to fasten the power cord to the mounting pole.

Fasten the power cord to the floor (using tape, for example) to prevent someone from tripping over it.

Cable ties

Power cord

Completed assembly of sign

Stand mounting (with brochure rack)

1. Remove the caps from the top of each mounting pole.

Remove each end cap by unfastening the two screws that hold each cap.

Mounting poles

2.   Place both mounting poles on a flat surface. Slide the crossbar down the channels on the mounting poles. Then slide a safety stop down each channel.
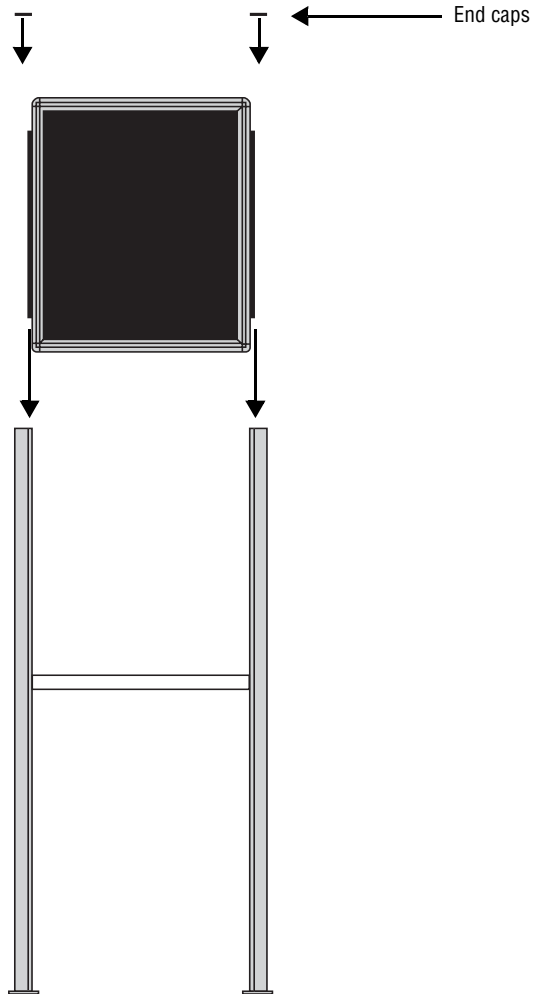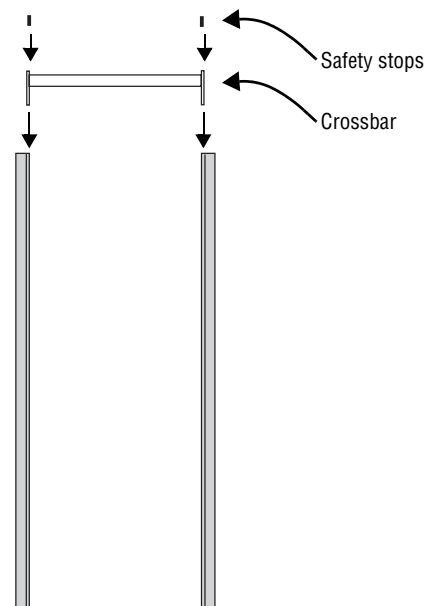
3.   Fasten the crossbar to each mounting pole with the four set screws. Then fasten each safety stop with the two sets of screws.
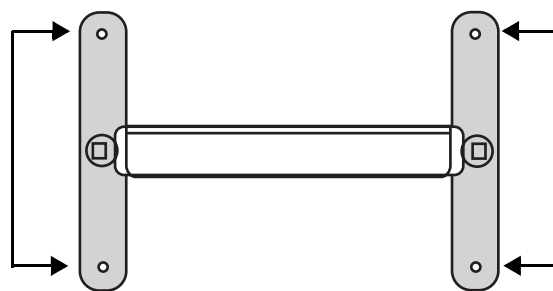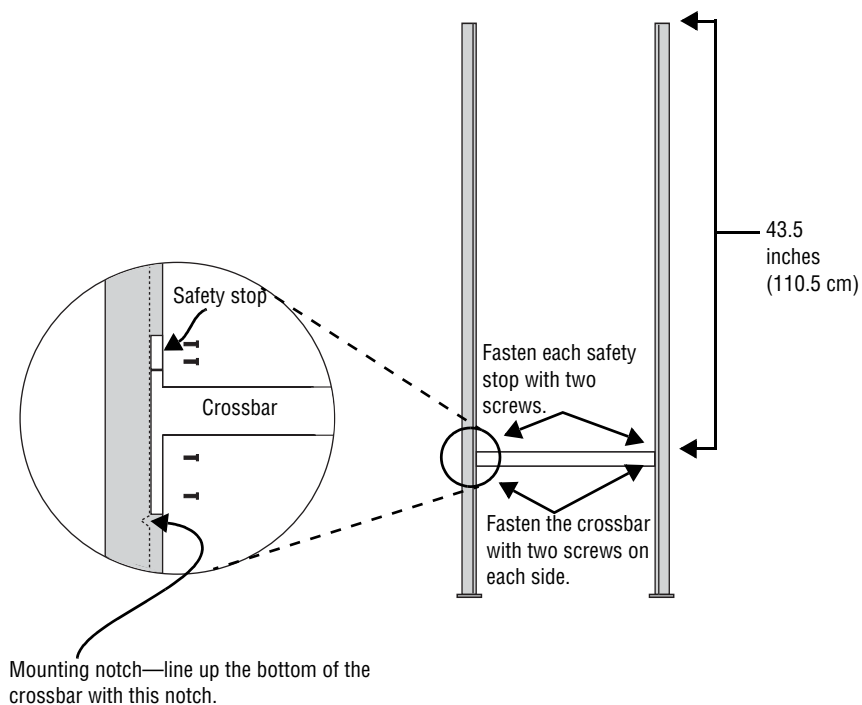
NOTE:Screws should be securely tightened (18- to 20-inch/pounds of torque recommended).

4. Place each of the brochure rack's mounting brackets in a channel on each mounting pole. Slide the brochure rack down until it rests on the safety stops. Then slide the sign down the channels. Finally, reattach the end caps onto the tops of the mounting poles.
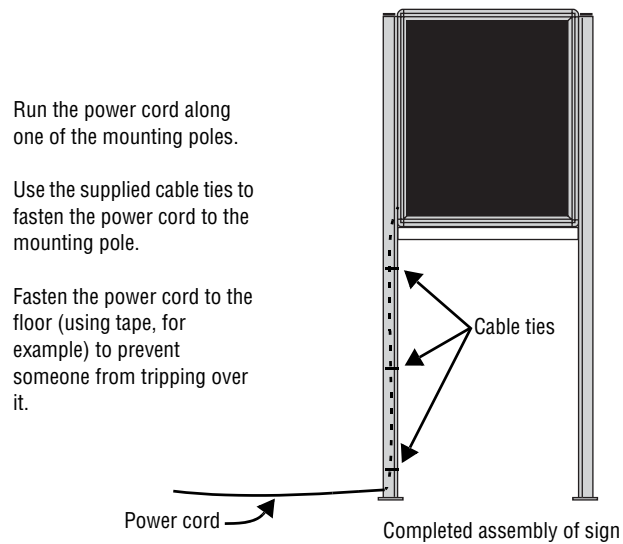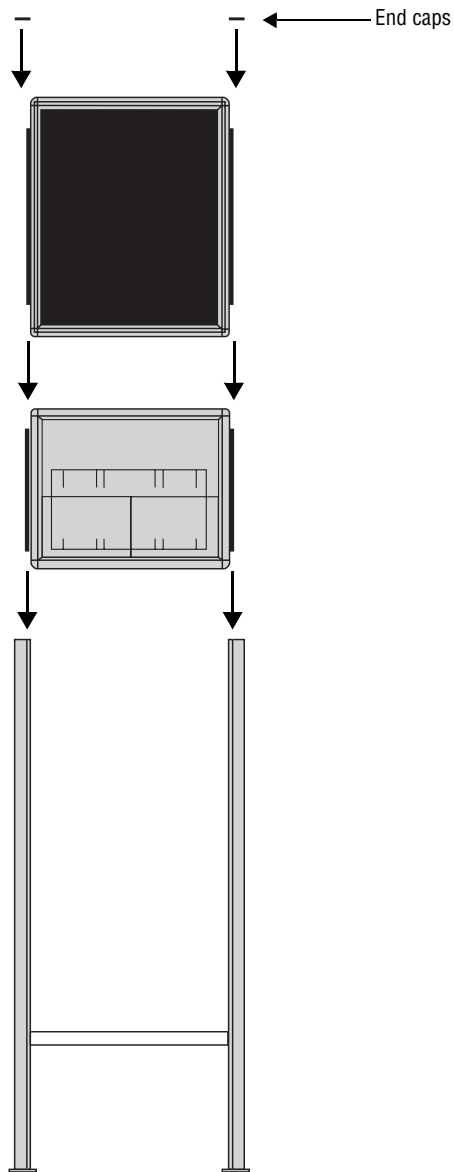
End caps

5.   Fasten the sign to the floor using four bolts or screws (not provided) in the locations shown below.
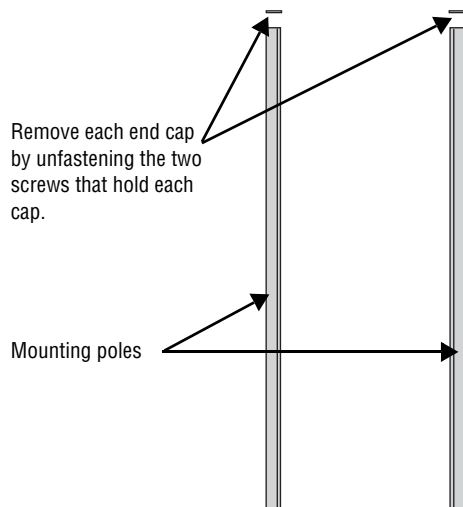
Top view of sign

6.   Route the power cord from the sign in such a way that the cord is not in an area where people will be walking.

Run the power cord along one of the mounting poles.

Use the supplied cable ties to fasten the power cord to the mounting pole.

Fasten the power cord to the floor (using tape, for example) to prevent someone from tripping over it.

Cable ties

Power cord

Crossbar

Plastic case

The plastic case can hold different sizes of literature.

Use the supplied plastic dividers to adjust for these sizes.

To remove the plastic case:
1.Unscrew the 4 screws from the crossbar.
2.Slip the crossbar down.
3.Loosen the two screws on the inside bottom of the brochure rack.
4.Remove the wood bottom of the brochure rack.
5.Remove the plastic case from the brochure rack.
6.Reassemble the brochure rack.
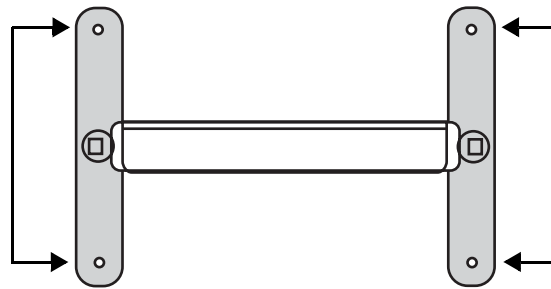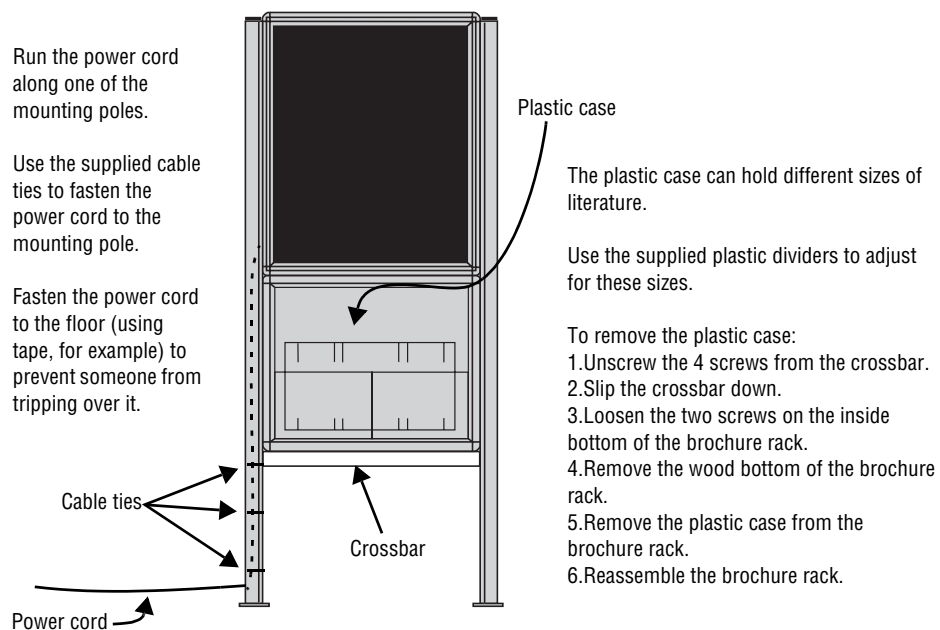
Completed assembly of sign

Wall mounting

1. Make sure a mounting bracket is attached to the back of the sign.

Sign mounting bracket
(factory-installed)
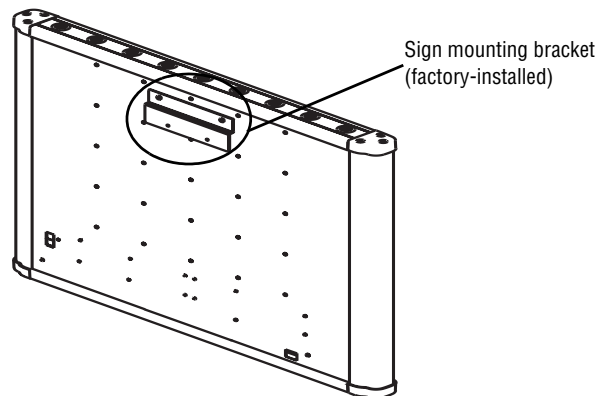
2. Attach the wall mounting bracket to a wall with fasteners (not provided). Then hang the sign from this bracket.

    NOTE: Both the wall and the fasteners must be capable of supporting 120 pounds (54.5 kg).

Wall mounting bracket.
This side attaches to
the wall.

Attach the wall
mounting bracket to
a wall.

To mount the sign, interlock
the two brackets.
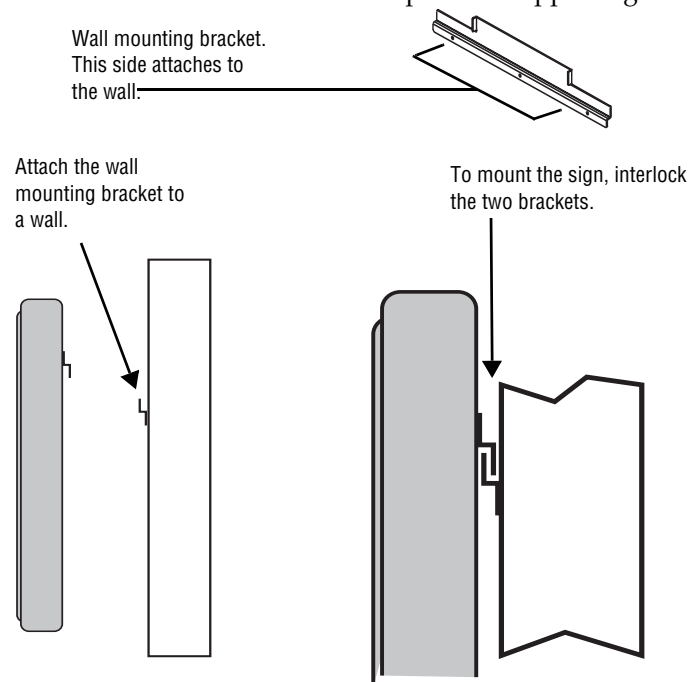
3. Plug the power cord into the back of the sign and route it from the sign in such a way that it is not in an area where people will be walking.

Stand mounting

1. Assemble the stand by attaching the pole to the base plate using six 1/4–20 x 1.25 inch Phillips flathead screws.

A 0.266 diameter hole for mounting stand to floor. (Fasteners not provided.)
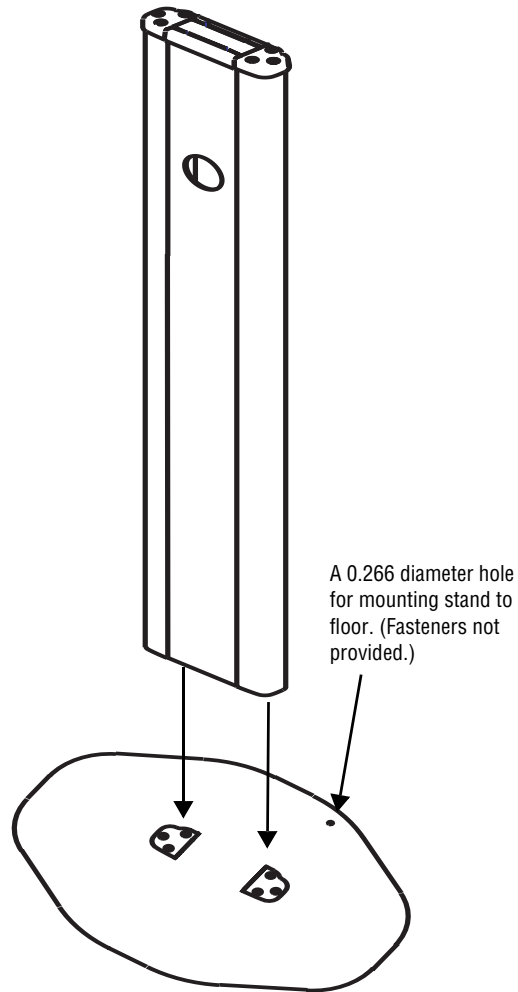
2. Attach the bottom bracket to the back of the sign, and to the front and top of the stand. Then attach the sign to the stand.

Power cord entry

All screws are 10–24 x 0.375 inch
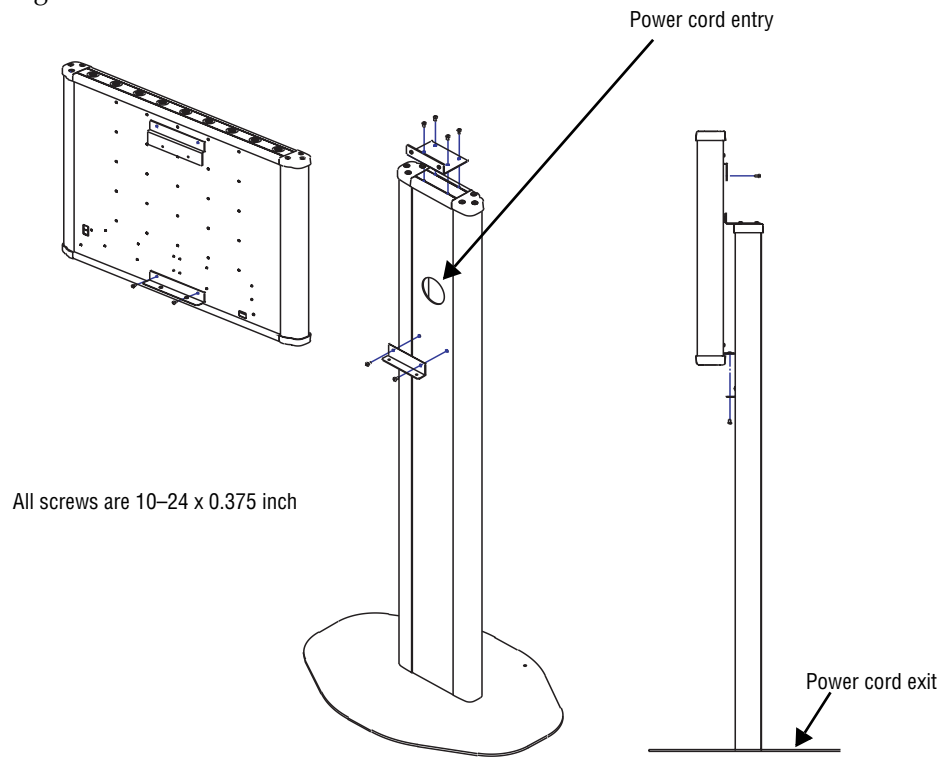
Power cord exit

3. Plug the power cord into the back of the sign. Run the cord through the power cord entry on the front of the stand, down the interior of the stand, then out the power cord exit.

Connecting signs to a computer

Connect the sign to a computer in order to send messages to it using Alpha Messaging Software Director Edition.

One sign to one computer

1. Remove power from the sign.
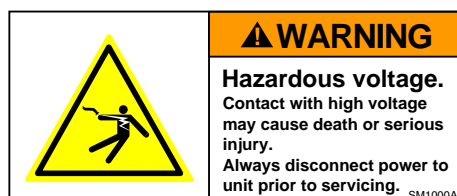
2. If you are connecting a wood Director, make sure the sign's internal RS232/RS485 jumper is set to RS232. The jumper is set automatically in the aluminum Director.

Remove the two screws holding the sign's cap.

Remove the cap.

Pull up and remove the clear plastic lens on the sign's front. Then set the jumper over the two left (RS232) pins.
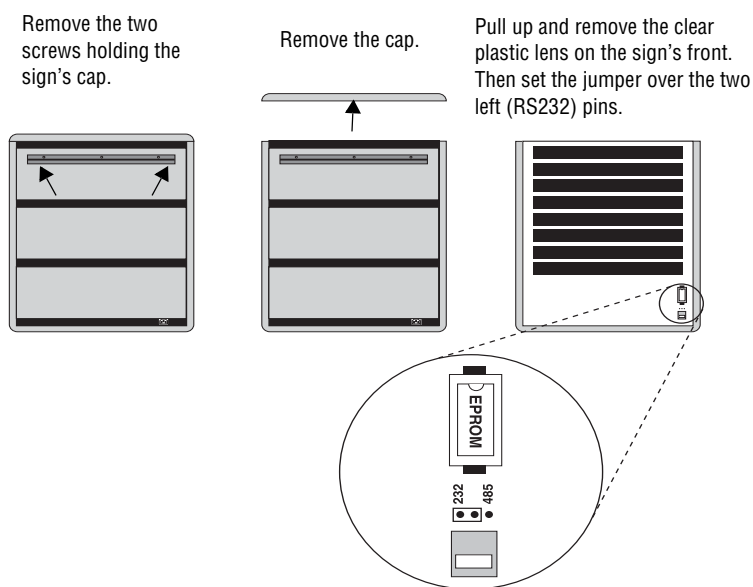
3. Connect a personal computer to the sign as shown.

To sign's RS232 jack on back of sign (under lower panel on wood Director)

To PC's RS232 COM port

PC running messaging software

Director sign

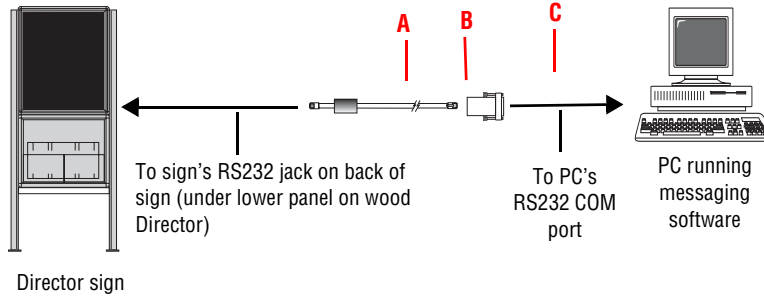| Item	Part #	Description
A	—	Ferrite (ferrite end towards sign)
B	1088-8625	25-foot RS232 cable
	1088-8627	50-foot RS232 cable
C	4370-0001C	RJ11-to-DB25 adapter (for a PC with a 25-pin RS232 port)
	1088-9108	RJ11-to-DB9 adapter (for a PC with a 9-pin RS232 port)
Note: Part number 1036-9010, a 6-connector RS232 cable, can replace pn 1088-8625 and pn 1088-9108.		

Multiple signs to a network

Because there are a variety of ways (for example, LAN, wireless, Ethernet, and so on) to connect networked signs, see the **Networking Alpha Signs** manual, PN 9700-0112, for more information.

On a wood Director, the sign's internal RS232/RS485 jumper must be set to RS485. See page 23 for more information on setting the jumper.

4—Software installation and setup

Messages can be sent to Director signs using either of two methods, the Alpha Messaging Software Director Edition or the hand-held remote control.

The **Messaging Software User Manual**, PN 9701-0202, is included in the installation of the software to provide you with specific information on how to send messages to a Director sign with the Director edition messaging software. It is located in your Windows Start menu (*Programs>Alpha Messaging Software Director Edition>User Manual*).
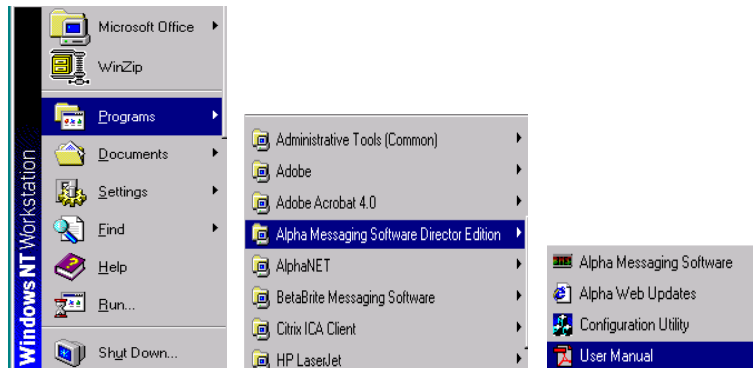

NOTE: Online help is available in the Director edition messaging software. It contains jumps to related topics for immediate access to the information you need, as well as popup windows that provide window-specific information that will help you move through the various procedures. Press the F1 key to access this help when in the software.

The other way messages can be sent to the Director signs is by using a hand-held remote control. Information on text messaging with the remote is found starting on page 28.

Installing the software

1. Start Microsoft Windows and be sure to have all other applications closed.

2. Insert the Alpha Messaging Software Director Edition CD-ROM into your CD-ROM drive. The installation process will start automatically.

   NOTE: If the installation does not start automatically, run the install through your Windows *Start>Run* menu, or double-click *Setup.exe* in your CD-ROM drive folder.
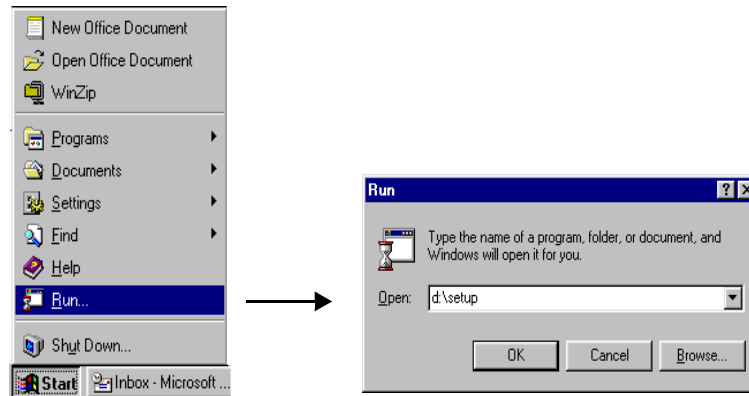
3. Follow the instructions when the installation program prompts you for a response. You will be given a choice as to which size Director display you want to send messages (the 16-character per line or the 24-character per line). Your choice determines what will appear in the title bar of the Alpha Messaging Software Director Edition. You will also be given a chance to install Acrobat Reader, which you will need to view the messaging software manual included.

4. When the installation program is complete, the Alpha Messaging Software Director Edition appears in your *Start* menu.
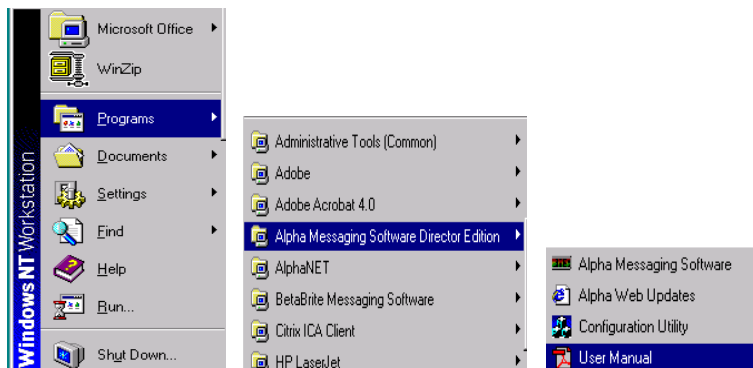
Setting up the software

Do the following only when you want to use a COM port other than COM1 (the default COM port):

1. Double-click *Configuration Utility* in the *Start>Programs>Alpha Messaging Software Director Edition* menu.
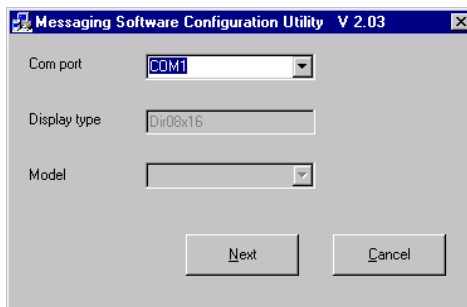
2. Select the appropriate COM port from the drop-down menu and click *Next*.

3. Select the type of Director sign to which you want to send messages or click *Detect* to have the software do it for you. Then click *OK*. The Configuration Utility will close automatically.

4. Open the software by double-clicking *Start>Programs>Alpha Messaging Software Director Edition>Alpha Messaging Software.*
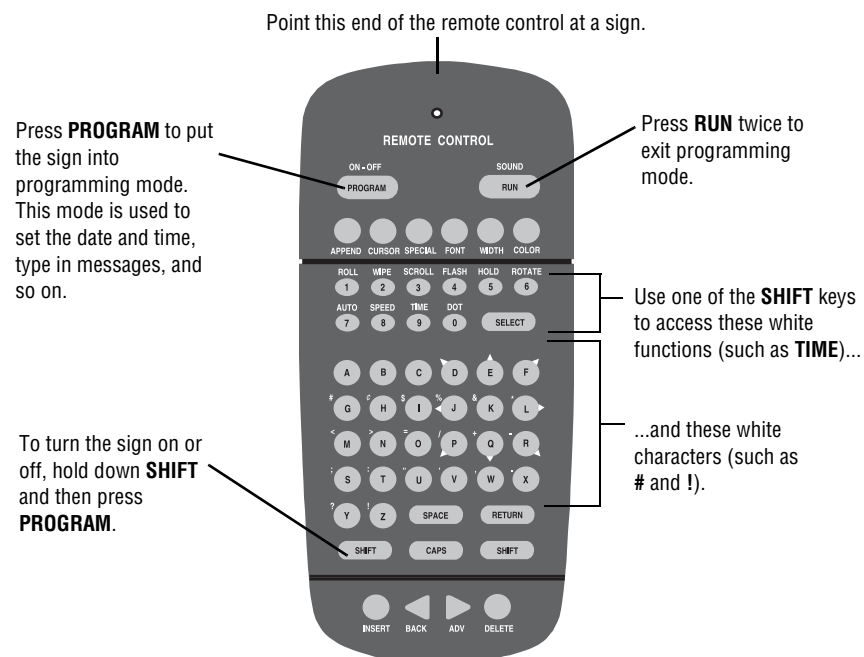
5—Using the remote control

Overview

The remote control is a hand-held keyboard which emits infrared light and is used to program a sign. The remote control needs four AAA batteries to operate. They should be installed in the back of the control.

The remote control can be used to turn a sign on and off, or to set its serial address. It can also be used to set its time and date, and to clear memory.

However, the remote control's most important—and most used—purpose is the creation of text messages and graphic images on a sign.

To show you how to use the remote control, this manual presents practical, everyday examples.
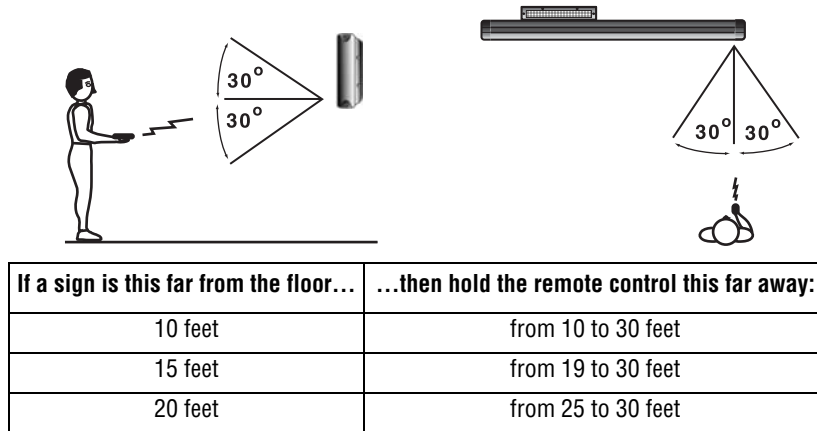
NOTE: A sign (or a network of signs) can also be programmed using a personal computer and special software. See the **Networking Alpha Signs** manual, PN 9700-0112, and your messaging software user manual for more detailed information.)

Point this end of the remote control at a sign.

Press **PROGRAM** to put the sign into programming mode. This mode is used to set the date and time, type in messages, and so on.

Press **RUN** twice to exit programming mode.

Use one of the **SHIFT** keys to access these white functions (such as **TIME**)...

To turn the sign on or off, hold down **SHIFT** and then press **PROGRAM**.

...and these white characters (such as **#** and **!**).

To use the remote control:

• Stand at least 5 feet and no more than 30 feet from the sign.

• Make sure nothing reflective is in front of the sign. (Light from the sign's display that is reflected back can interfere with the remote control.)

• If nearby fluorescent lights interfere with the remote control, you may have to relocate either the lights or the sign.
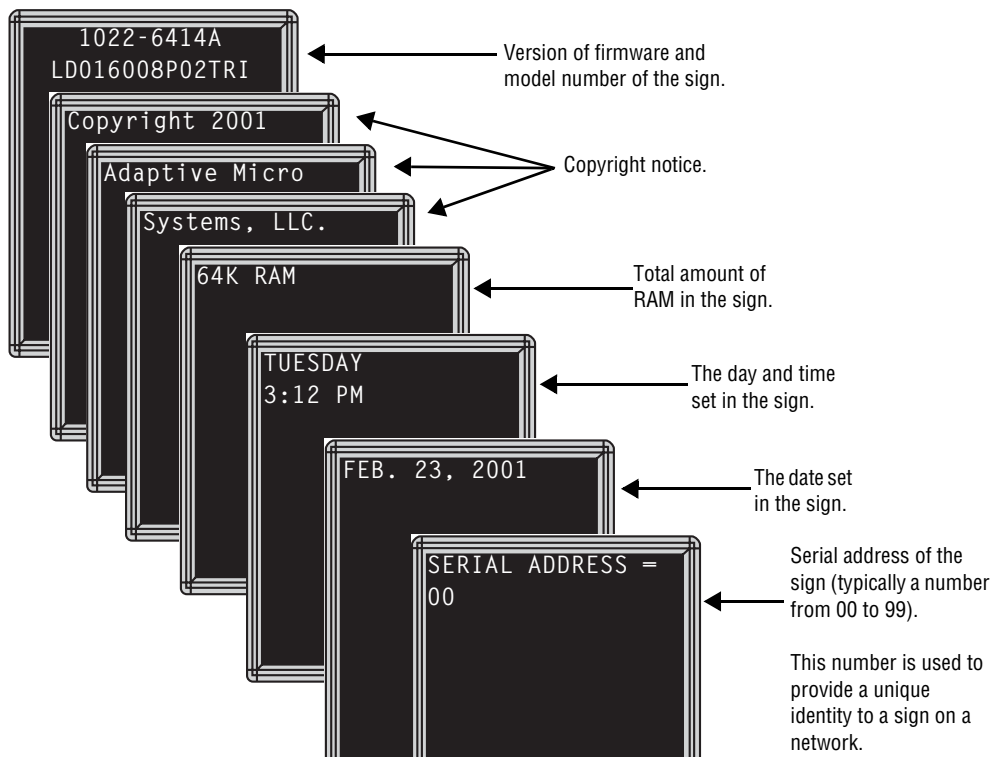

If a sign is this far from the floor…	…then hold the remote control this far away:
10 feet	from 10 to 30 feet
15 feet	from 19 to 30 feet
20 feet	from 25 to 30 feet

Turning a sign on and off

When you plug in the sign's power supply, the sign starts up automatically, and unplugging the power supply turns the sign off.

However, instead of unplugging a sign, there is another way to turn a sign off. Using the remote control, hold down **SHIFT** and then press **PROGRAM**.
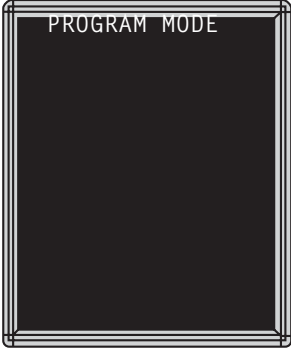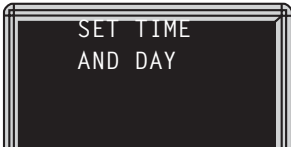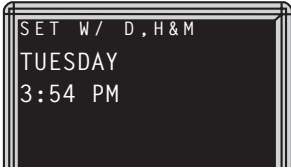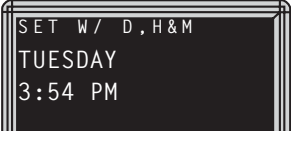
NOTE: Messages that you have programmed into the sign will not be lost when you turn a sign off. Messages will be retained for up to 30 days if the sign is not powered.
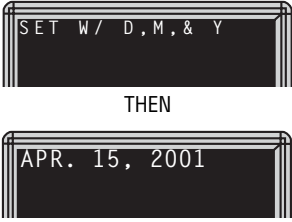
When you turn a sign on, information similar to the following will appear:

1022-6414A
LD016008P02TRI
— Version of firmware and model number of the sign.

Copyright 2001
Adaptive Micro
Systems, LLC.
— Copyright notice.

64K RAM
— Total amount of RAM in the sign.

TUESDAY
3:12 PM
— The day and time set in the sign.

FEB. 23, 2001
— The date set in the sign.

SERIAL ADDRESS = 00
— Serial address of the sign (typically a number from 00 to 99).

This number is used to provide a unique identity to a sign on a network.

Setting a sign's time and date

Once set, a sign will remember the time and date for up to 30 days, even if the sign is unplugged or interrupted by a power loss. This is because it is equipped with a battery-backed real-time clock.

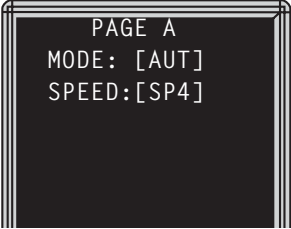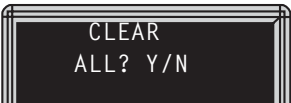| Step	When you do this…	You see this…
1	Press **PROGRAM**.	PROGRAM MODE THEN PAGE A MODE: [AUT] SPEED: [SP4]
2	Press **BACK** until *SET TIME AND DAY* appears.	SET TIME AND DAY
3	Press **ADV**.	SET W/ D,H&M TUESDAY 3:54 PM
4	Press **D** to set the day of the week. Press **H** to set the hour. Press **M** to set the minute. NOTE: Press **SELECT** to change from 12- (AM/PM) to 24-hour mode (0–23).	SET W/ D,H&M TUESDAY 3:54 PM
5	Press **BACK** until *SET DATE* appears.	SET DATE

6	Press **ADV**.	SET W/ D,M,& Y THEN APR. 15, 2001
7	Press **D** to set the correct day. Press **M** to set the month. Press **Y** to set the year. NOTE: Press **SELECT** to display the date in different formats—for example, APR 15, 2001 or 4/15/01, or 15/4/01, and so on.	APR. 15, 2001
8	After setting the date and time, press **RUN** twice to return to normal operation.	

Clearing a sign's memory

Clearing a sign's memory erases the password and all messages that have been programmed into the sign.

Step	When you do this…	You see this…
1	Press **PROGRAM**.	PROGRAM MODE THEN PAGE A MODE: [AUT] SPEED:[SP4]
2	Press **BACK** until *CLEAR MEMORY* appears.	CLEAR MEMORY
3	Press **ADV**.	WARNING ******* THEN CLEAR ALL? Y/N
4	Press **Y** to clear the sign's memory. The sign will return to normal operation and display a series of demo messages.	

Setting a sign's password
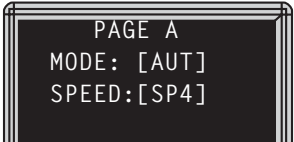
You can set a personal password to protect your messages from tampering by others. If you forget your password, you won't be able to operate the sign until you follow the steps on "Forgetting a sign's password" on page 34.

How to set a sign's password

Step	When you do this…	You see this…
1	Press **PROGRAM**.	PROGRAM MODE PAGE A MODE: [AUT] SPEED:[SP4]
2	Press **BACK** until *SET PASSWORD* appears.	SET PASSWORD
3	Press **ADV**.	PASSWD Y/N
4	Press **Y** to set a password.	ENTER 6 CHAR
5	Type a 6-character password. (Only asterisks will appear on the sign as you type.) Retype the password when prompted. *CORRECT* appears if you entered the same password. If you failed to type the same password, *ERROR* will appear, and you'll have to start over from step 1.	****** THEN RE-ENTER THE 6 THEN CORRECT THEN PAGE A MODE: [AUT] SPEED:[SP4]

| 6 | Press **RUN** twice. | `PASSWORD RUN? Y/ N` |
| 7 | Press **Y** to password protect the sign.

NOTE: If you select **N**, a password will not be needed when you press **PROGRAM**. | `SECURE`
THEN
The sign will return to normal operation. Now, whenever you press **PROGRAM**, you'll have to type the password you just entered. |

Forgetting a sign's password

Step	When you do this…	You see this…
1	Press **PROGRAM**.	`ENTER PASSWORD`

2	Hold down **SHIFT** and press **L** six times.	`* * * * * *`
		THEN
		`PAGE A`
		`MODE: [AUT]`
		`SPEED:[SP4]`

3	Enter a new password. (See "Setting a sign's password" on page 33.)	

Deleting a sign's password

If you no longer want to be prompted to password protect a sign, you must clear the sign's memory in order to delete the password. To do this, see "Clearing a sign's memory" on page 32.
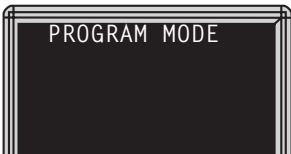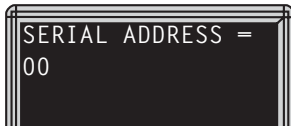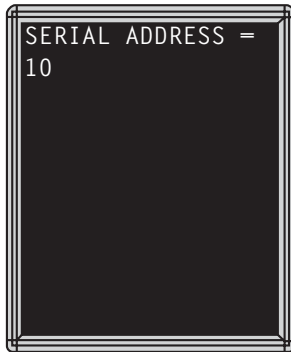
Using the remote control's sound control

Normally, whenever you press a remote control key, the sign will beep. This lets you know that an action has been performed. To turn this feature off (or on again), hold down **SHIFT** and press **RUN**.

Setting a sign's serial address

The serial address is a number that you can assign to a sign. Typically, this feature is used with a sign that is connected to other signs on a network. Giving a unique serial address to a sign allows you to send messages to that particular sign only.

See the **Networking Alpha Signs** manual, PN 9700-0112, for detailed information on networking signs.

Step	When you do this…	You see this…
1	Press **PROGRAM**.	PROGRAM MODE
2	Press **BACK** until *SET SERIAL ADDRESS* appears.	SET SERIAL ADDRESS
3	Press **ADV**.	SERIAL ADDRESS = 00
4	Type a number, such as **10**. NOTE: A serial address is actually a number from 0 to 255 in hexadecimal (00 to FF). However, in typical use, entering a number from 00 to 99 is fine. NOTE: When a sign leaves the factory, its serial address is set to 00.	SERIAL ADDRESS = 10
5	Press **RUN** twice to set the new serial address and return the sign to normal operation.	
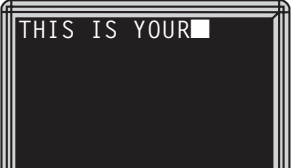
6—Beginning text messaging

This section shows you how to start creating messages for your sign using the remote control.
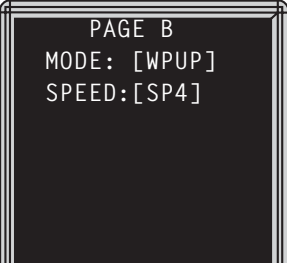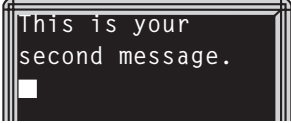
Example 1—Using upper and lowercase text
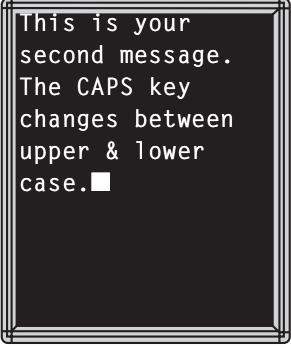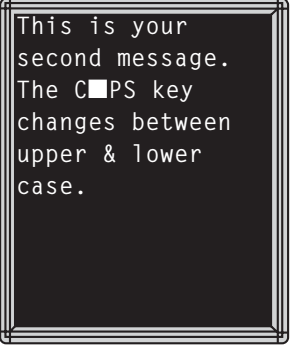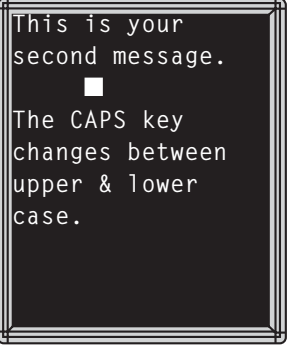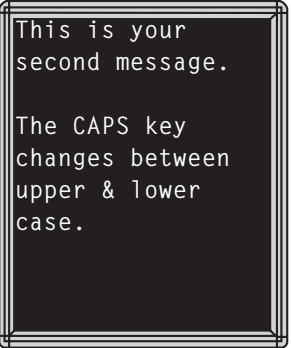
In this first example, you'll display the following text on the sign:

```
This is your
first message.
```

Your first message will look like this.

Your second message will look like this.

```
This is your
second message.

The CAPS key
changes between
upper & lower
case.
```

Step	When you do this…	You see this…

1	Press **PROGRAM**.	Modes allow you to use a special effect, like flashing, on a message. In this case, AUTOMODE [AUT] is used. To change the mode, hold down **SHIFT** and press either **2** (WIPE), **4** (FLASH), **5** (HOLD), or **7** (AUTO).
		
		SPEED controls how fast a mode changes. To change SPEED, hold down **SHIFT** and press **8**. [SP5] is the fastest speed and [SP1] is the slowest. [NHL] means "no hold".
		
		`PAGE A`
		`MODE: [AUT]`
		`SPEED:[SP4]`

2	Press **ADV**.	Blinking cursor
3	Type **THIS IS YOUR**. NOTE: If you make a mistake while typing, press **BACK** to erase a letter.	`THIS IS YOUR`
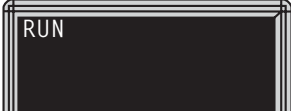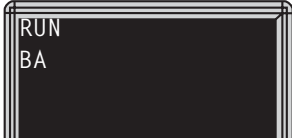
4	Press **RETURN** to go to the next line.	THIS IS YOUR
5	Type **FIRST MESSAGE**. NOTE: To create the period (.), hold down **SHIFT** and press **X**.	THIS IS YOUR FIRST MESSAGE.■
6	Press **RUN** to display your first message.	THIS IS YOUR FIRST MESSAGE. Because AUTOMODE [AUT] was used, the message will appear in different colors.

Here's how to create the second message:

7	Press **PROGRAM**.	PAGE A MODE: [AUT] SPEED:[SP4]
8	Press **B** to switch to PAGE B.	Your second message will be created in PAGE B. (Your first message is still in PAGE A. You can create up to 26 separate messages using pages A through Z.) PAGE B MODE: [AUT] SPEED:[SP4]

9	Hold down **SHIFT** and then press **2** for WIPE.	PAGE B MODE: [WPUP] SPEED:[SP4]	WPUP = wipe up. If you hold down **SHIFT** and press **2** again, the mode will change to WPDN (WIPE DOWN). You can also select wipe left and wipe right.
10	Press **ADV**.		
11	Press the round **COLOR** key until the cursor color stays green.		
12	Type **T**.	T	
13	Press **CAPS** to change to lowercase text. Then type **his is your**.	All these characters in this line should be green. → This is your
14	Press **RETURN** to go to the next line.	This is your
15	Press the round **COLOR** key until the cursor color stays red.	This is your
16	Type **second message**.	All these characters in this line should be red. → This is your second message.
17	Press **RETURN** to go to the next line.	This is your second message.
18	Press the round **COLOR** key until the cursor color stays amber.	This is your second message.

19	Using **CAPS**, **SHIFT**, and **RETURN** when necessary, type the following: **The CAPS key changes between upper & lower case.** NOTE: The ampersand (&) is made by holding down **SHIFT** and pressing **K**.	All these characters in these lines should be amber.	This is your second message. The CAPS key changes between upper & lower case.■

Here's how to insert a blank line between the two sentences above.

20	Hold down **SHIFT** and press **E** to move the cursor up one line. Repeat this until the cursor is over the *A* in *CAPS*.		This is your second message. The C■PS key changes between upper & lower case.
21	Press **INSERT** to create a blank line.	Use **INSERT** to create blank lines between text. (Use **DELETE** to remove blank lines.)	This is your second message. ■ The CAPS key changes between upper & lower case.
22	Press **RUN** to see the message.	Notice that only the second message (PAGE B) is displayed. In the next example, you'll see how to display multiple messages instead of just one.	This is your second message. The CAPS key changes between upper & lower case.

Example 2—Displaying messages in PAGE name order (A, B, C)

Once you've programmed messages into the sign, you may want to set the order or sequence in which messages appear. This method will display messages by their PAGE name (A, B, C, and so on) in the order you set (C, A, B, for example). If you do not set the sequence, the messages will appear in alphabetical order.
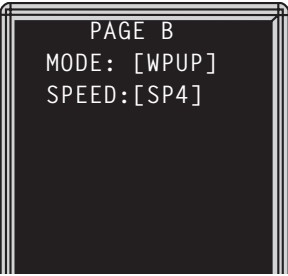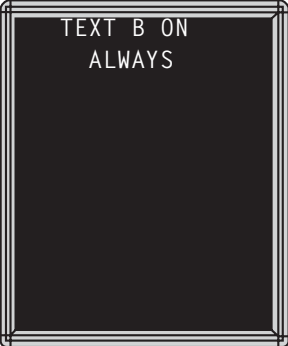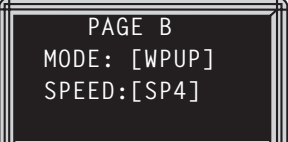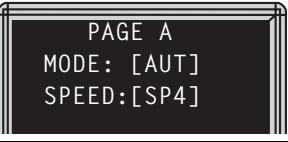
Step	When you do this…	You see this…
	This example continues where Example 1 left off. This example assumes that there are two messages (PAGE A and B) in the sign.	
1	Press **PROGRAM**.	Since we're continuing from Example 1, this would appear on the sign. PAGE B MODE: [WPUP] SPEED:[SP4]
2	Press **RUN**.	*DEMO* or *RUN* may also appear here. TIM *TIM* = displays messages in time order. *DEMO* = displays a set of demonstration messages. *RUN* = displays messages by PAGE order (A, B, C, and so on).
3	If *RUN* appears on the sign, go to the next step. Otherwise, press **SELECT** until *RUN* appears.	RUN
4	Press **B** and then **A**.	This will be the order (PAGE B, then PAGE A) in which messages are displayed on the sign. RUN BA

5	Press **RUN**.	PAGE B message ``` This is your second message. The CAPS key changes between upper & lower case. ``` PAGE A message ``` THIS IS YOUR FIRST MESSAGE. ``` These two messages will keep being displayed in this order until a new page order or a new message is entered.

Using this method, you can program the order of some or all of the messages you've entered on a sign.
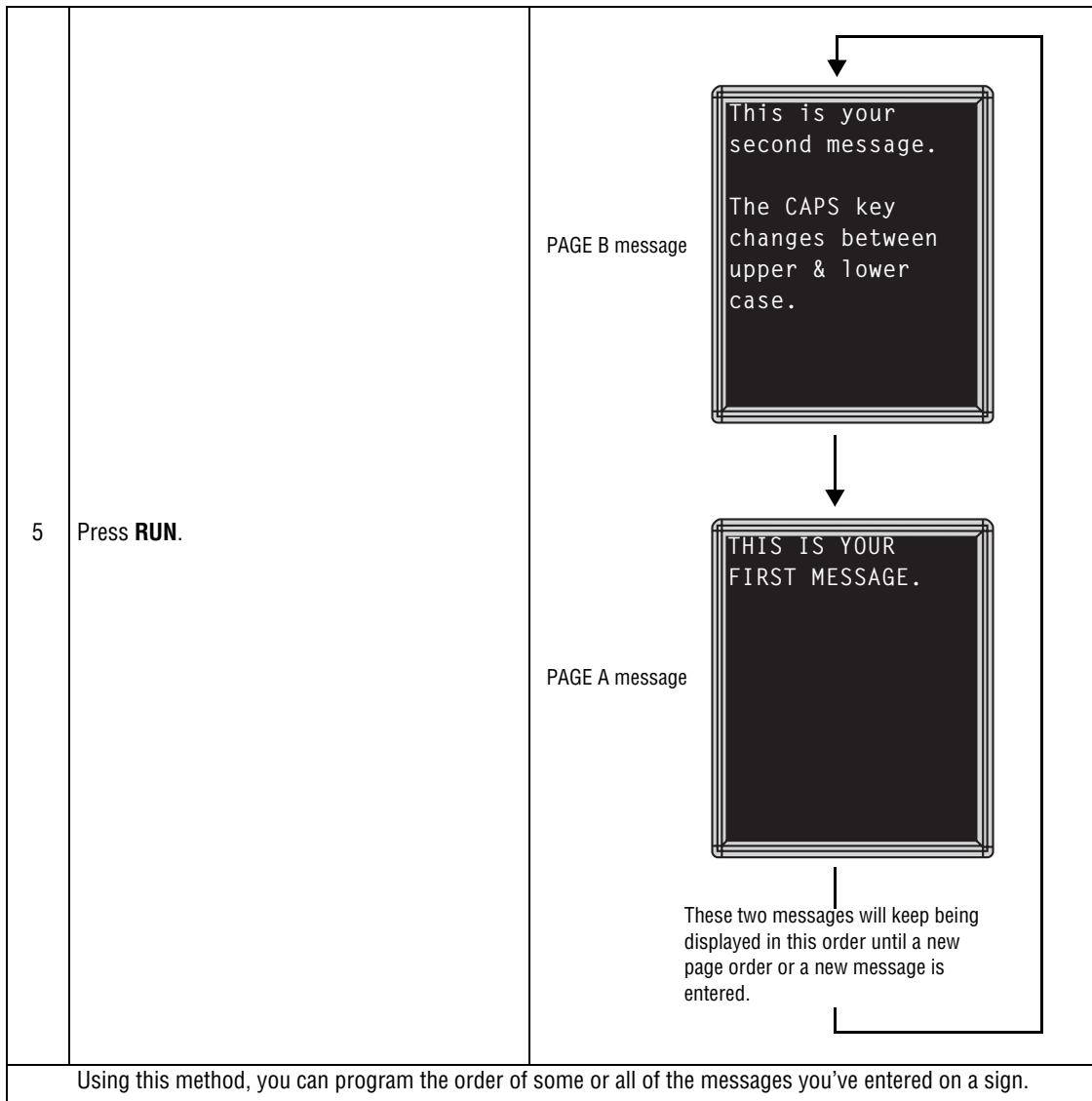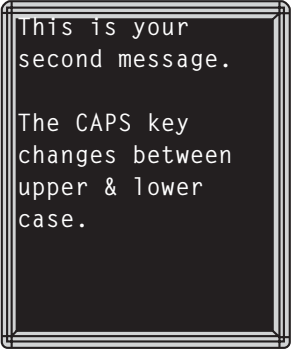
Example 3 — Displaying messages in time order

In Example 2, you set the order of messages by PAGE letter (A, B, C, and so on). However, that method could not specify an exact time when a message would appear.
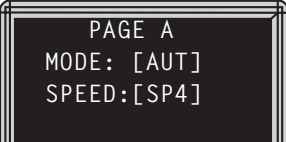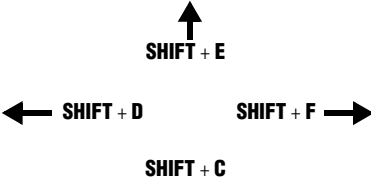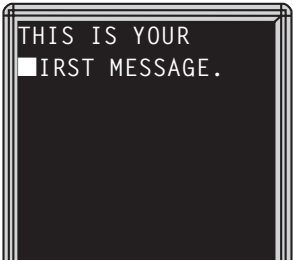
In this example, we'll show you how to make a message start and stop at times you specify.
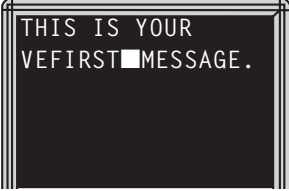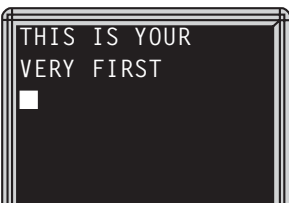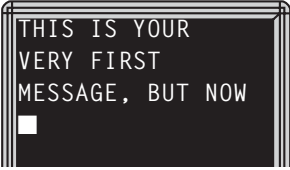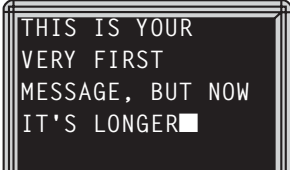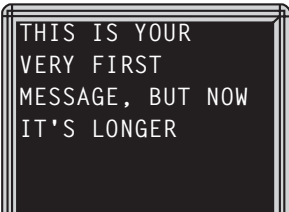
Step	When you do this…	You see this…
	For this example, make sure that your sign's internal clock has been accurately set. (See "Setting a sign's time and date" on page 30.) This example continues where Example 1 left off. This example assumes that there are two messages (PAGE A and B) in the sign. In this example, we'll program the sign to display the message in PAGE A on Monday through Friday from 1:20 PM to 1:30 PM. We'll program the sign to always display the message in PAGE B.	
1	Press **PROGRAM**. (If *PAGE B* does not appear, press **B** to display it.)	Since we're continuing from Example 1, this would appear on the sign. ```PAGE B MODE: [WPUP] SPEED:[SP4]```
2	Hold down **SHIFT** and press **9** for TIME.	*ON ALWAYS* is the default setting for a message. A message set to *ON ALWAYS* will run continuously. Since PAGE B is already set up, we'll go on to PAGE A. ```TEXT B ON ALWAYS```
3	Press **RUN** twice. Then press **PROGRAM**.	```PAGE B MODE: [WPUP] SPEED:[SP4]```
4	Press **A**.	```PAGE A MODE: [AUT] SPEED:[SP4]```
5	Hold down **SHIFT** and press **9** for TIME.	```TEXT A ON ALWAYS```

	First we'll set the ON time (when this message will start on the sign):	
6	Press **D** (for day) until *MO-FR* appears.	TEXT A ON MO-FR 0:00 Press **D** to set the day, **H** for hour, and **M** for minute (in 10-minute increments).
7	Press **H** (for hour) until *13:00* appears.	TEXT A ON MO-FR 13:00 Hours are represented in 24-hour or military style. So 1:00 PM = 13:00, 2:00 PM = 14:00, and so on.
8	Press **M** (for minute) until *13:20* appears.	TEXT A ON MO-FR 13:20 Minutes are in increments of 10.
9	Press **SELECT**.	TEXT A OFF MO-FR 0:00 After setting the on time, we'll select the off time (when the message stops).
10	Repeat steps 6, 7, and 8 to set an off time (in this case, 13:30).	
11	Press **RUN** twice.	This message should appear continuously. PAGE B This is your second message. The CAPS key changes between upper & lower case. This message should only appear between the on and off times you set. PAGE A THIS IS YOUR FIRST MESSAGE.

Example 4 — Changing the text of an existing message

After typing in a message, you may want to add or remove text from it. The following is an example of this common situation:
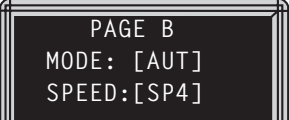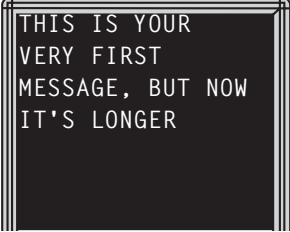
Step	When you do this…	You see this…
	This example continues where Example 2 left off. This example assumes that there are two messages (PAGE A and B) in the sign. In this example, we'll change PAGE A to the following: *THIS IS YOUR VERY FIRST MESSAGE, BUT NOW IT'S LONGER*	
1	Press **PROGRAM**.	PAGE A MODE: [AUT] SPEED:[SP4]
2	Press **RUN**. Press **SELECT** until *RUN* appears. Press **A** and then **B** to set a run sequence. Finally, press **RUN** again.	RUN AB
3	Press **PROGRAM**. (If *PAGE A* does not display, press **A**.)	PAGE A MODE: [AUT] SPEED:[SP4]
4	Press **ADV**.	The cursor should be blinking over the first letter. ■HIS IS YOUR FIRST MESSAGE.
5	Hold down **SHIFT** and press **C** to move the cursor down one line.	How to move the cursor: ↑ **SHIFT** + **E** ← **SHIFT** + **D** **SHIFT** + **F** → **SHIFT** + **C** ↓ The cursor should be blinking over the first letter on the second line. THIS IS YOUR ■IRST MESSAGE.

6	Try to type the word **VERY**.	You'll only be allowed to type the first two letters of *VERY*, because there must be enough room in a line to add the characters. →	THIS IS YOUR VE■IRST MESSAGE.
7	In order to make room for the word *VERY*, you'll have to delete the word *MESSAGE* first. Move the cursor to the end of the word *FIRST* by holding down **SHIFT** and then pressing **F**.		THIS IS YOUR VEFIRST■MESSAGE.
8	Press **DELETE** until the word *MESSAGE* (and the period) is deleted.		THIS IS YOUR VEFIRST■
9	Hold down **SHIFT** and press **D** to move the cursor over the letter *F*.		THIS IS YOUR VE■IRST
10	Finish the word *VERY* by typing **RY** and a space.		THIS IS YOUR VERY ■IRST
11	Hold down **SHIFT** and press **C** to move down one line. Then hold down **SHIFT** and press **D** until the cursor is at the start of the line.		THIS IS YOUR VERY FIRST ■
12	Type **MESSAGE, BUT NOW**.	The cursor moves to the next line automatically. Use **SHIFT** + **W** to create a comma.	THIS IS YOUR VERY FIRST MESSAGE, BUT NOW ■
13	Type **IT'S LONGER**.	Use **SHIFT** + **V** to create an apostrophe.	THIS IS YOUR VERY FIRST MESSAGE, BUT NOW IT'S LONGER■
14	Press **RUN** to see your message.		THIS IS YOUR VERY FIRST MESSAGE, BUT NOW IT'S LONGER

Example 5 — Deleting messages

To delete all the messages in a sign, see "Clearing a sign's memory" on page 32.

However, if you only want to delete selected messages, then use the method shown in this example.
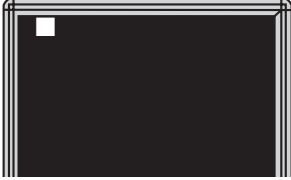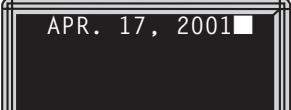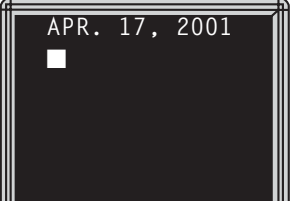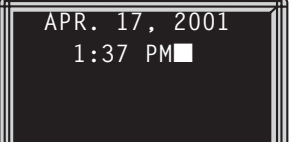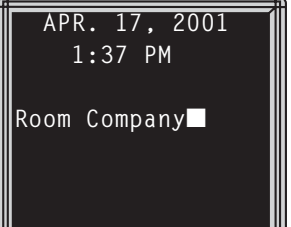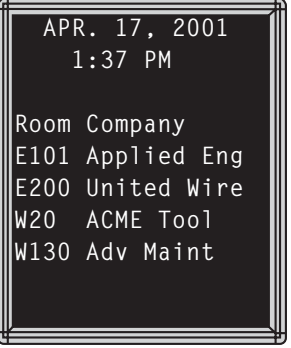
Step	When you do this…	You see this…
	This example continues where Example 4 left off.	
	This example assumes that there are two messages (PAGE A and B) in the sign:	
	PAGE A = *THIS IS YOUR VERY FIRST MESSAGE, BUT NOW IT'S LONGER*	
	PAGE B = *This is your second message. The CAPS key changes between upper & lower case.*	
	In this example, we'll delete the PAGE B message:	
1	Press **PROGRAM**. (If *PAGE B* does not display, then press **B**.)	PAGE B MODE: [WPUP] SPEED:[SP4]
2	Press **DELETE**.	DELETE FILE B Y/N
3	Press **Y** to delete the page.	PAGE B MODE: [AUT] SPEED:[SP4]
4	Press **RUN** twice.	Only the PAGE A message should appear. THIS IS YOUR VERY FIRST MESSAGE, BUT NOW IT'S LONGER
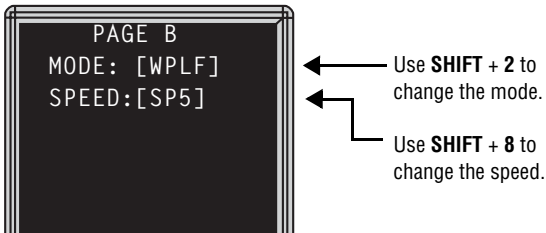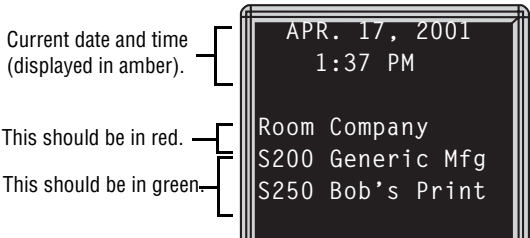
7—Advanced text messaging

Before attempting the following, make sure you're familiar with the previous examples in the 6—Beginning text messaging section of this manual.

Example 6 — Displaying the time and date

Step	When you do this…	You see this…
	In this example, we'll create a message that continuously displays the current time and date:	

Current date and time (displayed in amber).

This will be displayed in red.

This will be displayed in green.

```
APR. 17, 2001
    1:37 PM

Room Company
E101 Applied Eng
E200 United Wire
W20  ACME Tool
W130 Adv Maint
```

PAGE A

(The first message you'll enter.)

Current date and time (displayed in amber).

This will be displayed in red.

This will be displayed in green.

```
APR. 17, 2001
    1:37 PM

Room Company
S200 Generic Mfg
S250 Bob's Print
```

PAGE B

(The second message you'll enter.)

Step	When you do this…	You see this…
1	Delete all the messages currently stored in the sign. (See "Clearing a sign's memory" on page 32 or "Example 5 — Deleting messages" on page 46.)	

2	Press **PROGRAM**.
	
	(If *PAGE A* does not display, press **A**.)
		```PAGE A```
		```MODE: [AUT]```
		```SPEED:[SP4]```

3	Change the mode to WIPE DOWN.
	
	Set the message transition speed to its fastest (SP5).
		```PAGE A```
		```MODE: [WPDN]```
		```SPEED:[SP5]```
		
		Use **SHIFT** + **2** to change the mode.
		
		Use **SHIFT** + **8** to change the speed.

4	Press **ADV**. Press **COLOR** until the cursor always blinks amber. Then press **SPACE** to move the cursor over two spaces.	
	Here's how to put the date in the message:	
5	Hold down **SHIFT** and press **0**.	APR. 17, 2001■
6	Press **RETURN** to start on a new line. Press **COLOR** until the cursor always blinks amber. Then press **SPACE** four times to move the cursor over.	APR. 17, 2001 ■
	Here's how to put the time in a message:	
7	Hold down **SHIFT** and press **9**.	APR. 17, 2001 1:37 PM■
	Now enter the rest of the PAGE A message:	
8	Press **RETURN** twice to skip down two lines. Press **COLOR** until the cursor always blinks red. Using **CAPS** when necessary, type **Room**, a space, and then **Company**.	APR. 17, 2001 1:37 PM Room Company■
9	Press **RETURN** again to start on a new line. Press **COLOR** until the cursor always blinks green. Using **CAPS** when necessary, type **E101**, a space, and then **Applied Eng**. Repeat this process for the remaining lines of text.	APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire W20 ACME Tool W130 Adv Maint
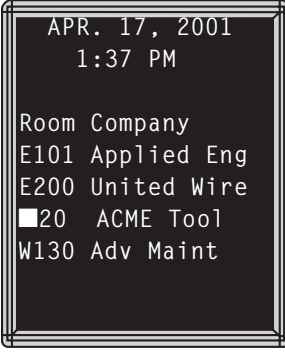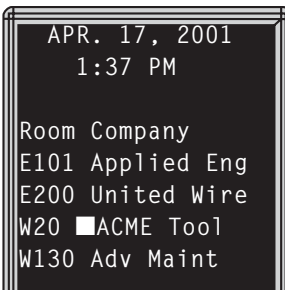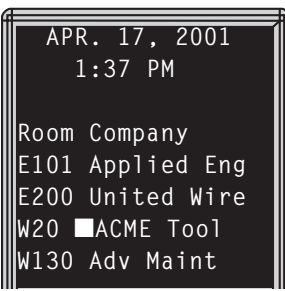
10	Press **PROGRAM**. Press **B** to go to *PAGE B*. Change the mode to WIPE LEFT [WPLF]. Change the speed to the fastest [SP5].	PAGE B MODE: [WPLF] SPEED:[SP5] Use **SHIFT** + **2** to change the mode. Use **SHIFT** + **8** to change the speed.
11	Press **ADV**.	
12	Using what you've just learned, type in the PAGE B message as shown:	Current date and time (displayed in amber). This should be in red. This should be in green. APR. 17, 2001 1:37 PM Room Company S200 Generic Mfg S250 Bob's Print
13	Press **RUN**.	TIM
14	Press **SELECT** until *RUN* appears.	RUN
15	Type **A** and then **B** to set the order in which the two messages will appear.	RUN AB

16	Press **RUN** again to display the two messages.	PAGE A message
		
		``
		APR. 17, 2001
		    1:37 PM
		
		Room Company
		E101 Applied Eng
		E200 United Wire
		W20 ACME Tool
		W130 Adv Maint
		``
		
		PAGE B message
		
		``
		APR. 17, 2001
		    1:37 PM
		
		Room Company
		S200 Generic Mfg
		S250 Bob's Print
		``
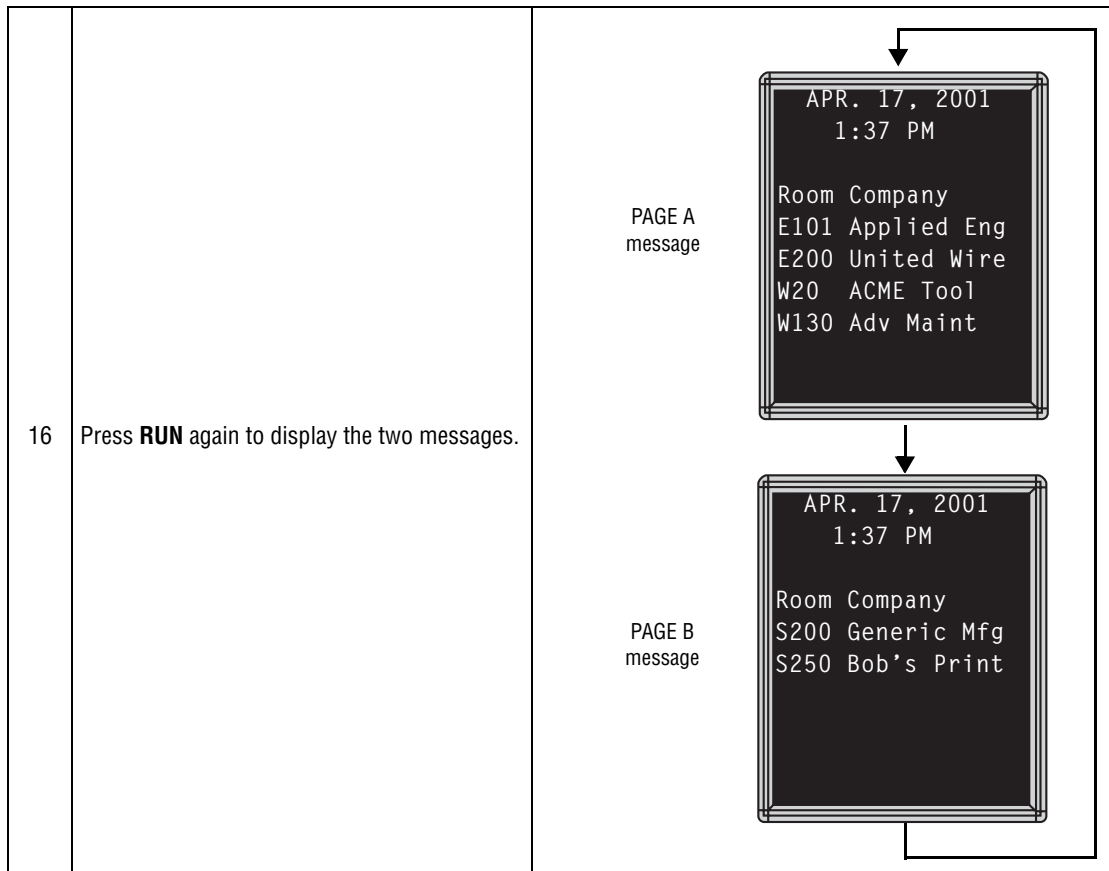
Example 7 — Using the FLASH mode to highlight information

FLASH is a mode that you shouldn't overuse. However, it is very handy if you want to call attention to a single item, like a time or room number, on a page:

Step	When you do this…	You see this…
	In this example, we'll continue from the previous example:
	To call attention to this room number, we'll make it flash on and off.	APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire W20 ACME Tool W130 Adv Maint
1	Press **PROGRAM**. (If *PAGE A* does not display, then press **A**.)	PAGE A MODE: [WPDN] SPEED:[SP5]
2	Press **ADV**.	Blinking cursor ▢ APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire W20 ACME Tool W130 Adv Maint Since this continues where the last example left off, this is what should appear for PAGE A.
3	Press **A**.	▢ APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire W20 ACME Tool W130 Adv Maint

4	Hold down **SHIFT** and press **C** until the cursor is over the letter *W* in *W20*.	Move the cursor here.	APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire ■20 ACME Tool W130 Adv Maint
5	Hold down **SHIFT** and press **4** for FLASH.	This entire line should now be flashing.	APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire ■20 ACME Tool W130 Adv Maint
6	Move the cursor to in front of *ACME Tool*.	Hold down **SHIFT** and press **F** to move the cursor.	APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire W20 ■ACME Tool W130 Adv Maint
7	Hold down **SHIFT** and press **4**. This turns flashing off for the rest of the line.	Now the only text flashing should be the room number (*W20*).	APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire W20 ■ACME Tool W130 Adv Maint
8	Press **RUN** to see the message.		APR. 17, 2001 1:37 PM Room Company E101 Applied Eng E200 United Wire W20 ACME Tool W130 Adv Maint

Example 8 — Using fonts and colors

Fonts are the way characters are displayed on a sign. In the world of printing and publishing, fonts are given names like Times or Helvetica, and qualities like serif or sans serif, font size (such as 12 point or 14 point), bold or italic, and so on.

This sign can display two types of fonts:

Upper *and* lowercase letters can be used with this font.   ➤   `This is the first font.`

Only uppercase letters can be used with this font.   ➤   `THIS IS THE SECOND FONT.`
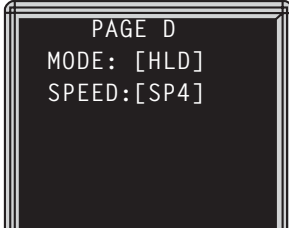
This is the message we'll create using both of the sign's fonts.

```
      WELCOME!

Hernia Movers
"THE POTENTATE
  OF TOTIN'
   FREIGHT"
```
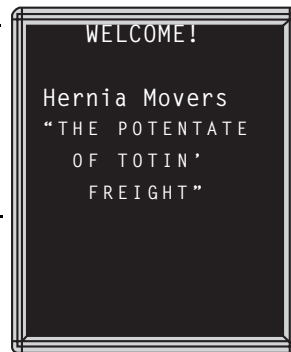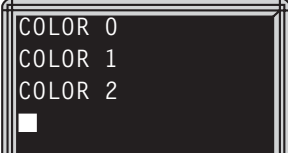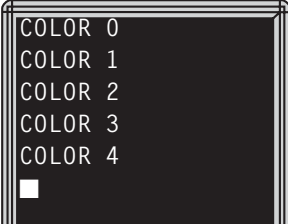
To change from one font to the other, press the **FONT** key.

The following examples demonstrate how to use fonts on a sign:

Step	When you do this…	You see this…

1	Press **PROGRAM**.
	
	 (If *PAGE C* does not display, press **C**.)
	
	 Using **SHIFT** + **5**, change the MODE to Hold.
		`PAGE C`
		 `MODE: [HLD]`
		 `SPEED:[SP4]`

2	Press **ADV**.	▪

3	Type the following message:	`      WELCOME!`
		
		 `Hernia Movers`
		 `"The potentate`
		 `  of totin'`
		 `   freight"`▪

4	Move the cursor in front of the *The potentate* and then press **FONT**.	Pressing **FONT** changes the entire line to a different font. (Pressing **FONT** again would restore the original font.)	WELCOME! Hernia Movers ■"THE POTENTATE of totin' freight"
5	Move the cursor in front of the word *potentate* and press **FONT**. All text after the cursor should change to the other font.	The **FONT** key can be used to change a whole line of text or just a single word.	WELCOME! Hernia Movers "THE■potentate of totin' freight"
6	Press **FONT** again to make the whole line the same font. Then position the cursor in front of the remaining lines and change the font of each line.		WELCOME! Hernia Movers "THE POTENTATE OF TOTIN' ■ FREIGHT"
7	Press **RUN** to see your message.		WELCOME! Hernia Movers "THE POTENTATE OF TOTIN' FREIGHT"
Here's a demonstration of what colors can be used:			
8	Press **PROGRAM**. (If *PAGE D* does not display, press **D**.) Using **SHIFT** + **5**, change the MODE to Hold.		PAGE D MODE: [HLD] SPEED:[SP4]
9	Press **ADV**.		■
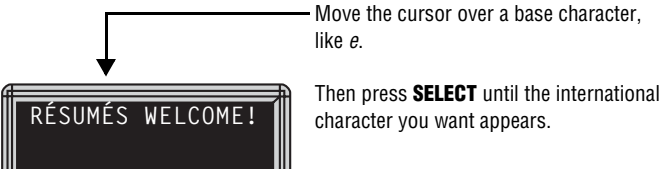
10	Type **COLOR 0** Then press **RETURN**.	COLOR 0 should be red to start. When displayed in the message, it will cycle through several color schemes.	COLOR 0 ■
11	Press **COLOR** one time. Type *COLOR 1*. Then press **RETURN**.	*COLOR 1* should be red.	COLOR 0 COLOR 1 ■
12	Press **COLOR** two times. Type **COLOR 2**. Then press **RETURN**.	*COLOR 2* should be green.	COLOR 0 COLOR 1 COLOR 2 ■
13	Press **COLOR** three times. Type **COLOR 3**. Then press **RETURN**.	*COLOR 3* should be amber.	COLOR 0 COLOR 1 COLOR 2 COLOR 3 ■
14	Press **COLOR** four times. Type **COLOR 4**. Then press **RETURN**.	*COLOR 4* should be multi-colored with the same combination of colors for each character.	COLOR 0 COLOR 1 COLOR 2 COLOR 3 COLOR 4 ■
15	Press **COLOR** five times. Type **COLOR 5**. Then press **RETURN**.	*COLOR 5* should be multi-colored with a different combination of colors for each character.	COLOR 0 COLOR 1 COLOR 2 COLOR 3 COLOR 4 COLOR 5 ■
16	Press **COLOR** six times. Type **COLOR 6**. Then press **RETURN**.	Each character in *COLOR 6* should be a different color.	COLOR 0 COLOR 1 COLOR 2 COLOR 3 COLOR 4 COLOR 5 COLOR 6 ■
17	Press **RUN** to see what all the colors look like in a running message.		

Example 9 — International characters

International characters—like ü and é—can be included in messages.

NOTE: International characters cannot be used with the small font. If they are, a question mark (?) will appear in place of the letter.
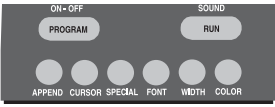
The following table summarizes all the international characters that can be used:

Base Characters	RÉSUMÉS WELCOME! — Move the cursor over a base character, like *e*. Then press **SELECT** until the international character you want appears.										
	(Use the **CAPS** button on the remote control for uppercase versus lowercase letters.)										
	A	C	E	I	N	O	U	Y	?	!	$
International Characters	â	Ç	é	ï	ñ	ô	ü	ÿ	¿	¡	¢
	ä	ç	ê	î	Ñ	ö	û	Y	?	!	£
	å	C	ë	ì	N	ò	Ú	y			¥
	À	c	è	I	n	Ó	ú				ƒ
	Ä		Ė	i		ó	Ù				$
	æ		E			o̱	u				
	Æ		e			Ō					
	á					o					
	a̱										
	A										
	a										

8—Appendices

Appendix A—Quick Reference Card

Message control keys
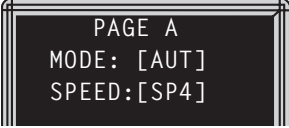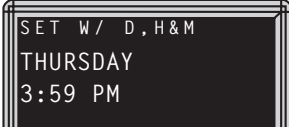
PROGRAM	To turn the sign on or off, hold down **SHIFT** and then press **PROGRAM**. To enter messages, set the date and time, clear memory, and so on. Press **PROGRAM** and then **BACK** until the setting you want to change is shown. Then press **ADV** to change that setting.
RUN	Press two times to exit program mode.
APPEND	Not used.
CURSOR	Not used.
SPECIAL	Not used.
FONT	Changes between a small or large font.
WIDTH	Not used.
COLOR	Changes the color of text.

Display modes and special keys

ROLL	Not used.
WIPE	Hold down **SHIFT** and press **2** to use the WIPE mode in a message. Doing this more than once cycles through all the options for direction of the wipe.
SCROLL	Not used.
FLASH	Hold down **SHIFT** and press **4** to use the FLASH mode in a message.
HOLD	Hold down **SHIFT** and press **5** to use the HOLD mode in a message.
ROTATE	Not used.
AUTO	Hold down **SHIFT** and press **7** to use the AUTO mode in a message.
SPEED	Hold down **SHIFT** and press **8** to use the SPEED mode in a message. Doing this more than once cycles through all the options for speed. (SP1 = slowest, NHL = fastest)
TIME	Hold down **SHIFT** and press **9** to include the time in a message.
DATE	Hold down **SPECIAL** and press **M** to include the date in a message.

Appendix B—Sign diagnostic test
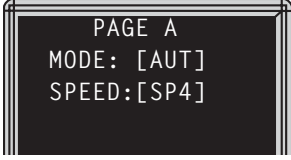
Your sign can perform a diagnostic test to determine if all the LEDs are working properly.

Step	When you do this…	You see this…
1	Press **PROGRAM**.	PAGE A MODE: [AUT] SPEED:[SP4]
2	Press **BACK** until *SET TIME AND DAY* appears.	SET TIME AND DAY
3	Press **ADV**.	SET W/ D,H&M THURSDAY 3:59 PM
4	Type **TEST**.	The sign will go through a series a LED tests until **PROGRAM** is pressed again.
5	Press **PROGRAM** to exit the diagnostic test mode.	

Appendix C—Transferring a sign's memory from one sign to another

You can transfer the messages from the memory of one sign to the memory of any another sign by completing the following steps.

NOTE: To complete the transfer of memory from one sign to other signs, all signs must be connected together. For information on connecting signs, see "Connecting signs to a computer" on page 23. For detailed information, see the **Networking Alpha Signs** manual, PN 9700-0112.

Step	When you do this…	You see this…
1	Press **PROGRAM**.	PAGE A MODE: [AUT] SPEED:[SP4]
2	Press **SPECIAL**.	SPECIAL
3	Press **D**.	SENDING
4	The sending sign transmits all messages to the receiving sign and then resumes displaying messages as programmed.	

With the aluminum Director, you can also use the RS485 echo feature to transfer a sign's memory from one sign to another. Please refer to Appendix H—RS232 in and echo out RS485 (aluminum Director) on page 56.

Appendix D—Using the IR Message Loader

The IR (InfraRed) Message Loader is a hand-held device used to transfer messages from one sign to another, or from a computer to a sign, using messaging software.
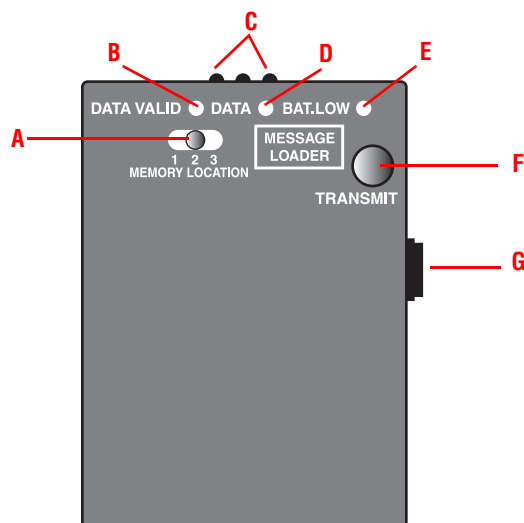
Item	Name	Description
A	MEMORY LOCATION switch	Allows you to select one of the three 10,000-byte memory partitions.
B	DATA VALID indicator	Indicates valid data in the memory location currently selected.
C	Infrared transmitters	Used to transmit messages stored in MEMORY LOCATIONS to signs.
D	DATA indicator	When lit, indicates data is being sent or received via the serial port or the infrared transmitters.
E	BAT. LOW indicator	When lit, indicates that the battery should be replaced.
F	TRANSMIT button	When transferring a message from a PC into the IR Message Loader, pressing this button stores the message in the selected MEMORY LOCATION. When transferring a message from the IR Message Loader into a sign, pressing this button sends the message in the currently selected MESSAGE LOCATION to a sign.
G	Serial port	Connects to the Director sign.

Transferring messages from a PC to the IR Message Loader

1. Connect the IR Message Loader to a PC running Alpha Messaging Software Director Edition. See the **IR Message Loader Instructions** manual, PN 9707-1003.

2. In the Alpha Messaging Software Director Edition, create a test message.

3. In the Configuration Utility of the Alpha Messaging Software Director Edition, verify the correct COM port is selected.

4. On the IR Message Loader, set the **MEMORY LOCATION** switch to the location (1, 2, or 3) to which the messages will download.

5. On the IR Message Loader, press and then release the **TRANSMIT** button.

6. Wait at least 2 seconds. Then use Alpha Messaging Software Director Edition to send your message to the IR Message Loader.

7. The data indicator on the IR Message Loader should light up while a message downloads. When the DATA VALID light indicator turns on, the message download is complete.

If the message download fails, repeat from step 4.

Transferring messages from the IR Message Loader to a sign

1. Connect the IR Message Loader to a Director sign.

2. On the IR Message Loader, set the **MEMORY LOCATION** switch to the location (1, 2, or 3) that you used in "Transferring messages from a PC to the IR Message Loader".

3. Press and hold the **TRANSMIT** button on the IR Message Loader. The data indicator should light up.

When the data indicator turns off, the messages have been transferred to the sign.

Appendix E—Updating the firmware (wood Director)

Updating the sign's firmware (or EPROM)

From time to time it may be necessary to update the sign's internal firmware by replacing an EPROM inside the sign. To do this, follow these steps:

1. Remove power from the sign.

WARNING

Hazardous voltage.
Contact with high voltage may cause death or serious injury.
Always disconnect power to unit prior to servicing. SM1000A
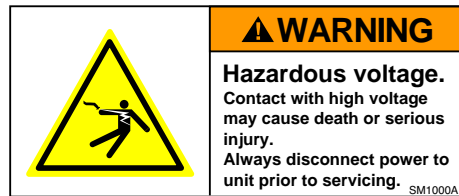
2. Replace the sign's internal EPROM according to this diagram:

Remove the two screws holding the sign's cap.

Remove the cap.

Pull up and remove the clear plastic lens on the sign's front.

To remove the current EPROM, grasp these two tabs and gently pull it out. Then put in the new EPROM.

EPROM

232   485
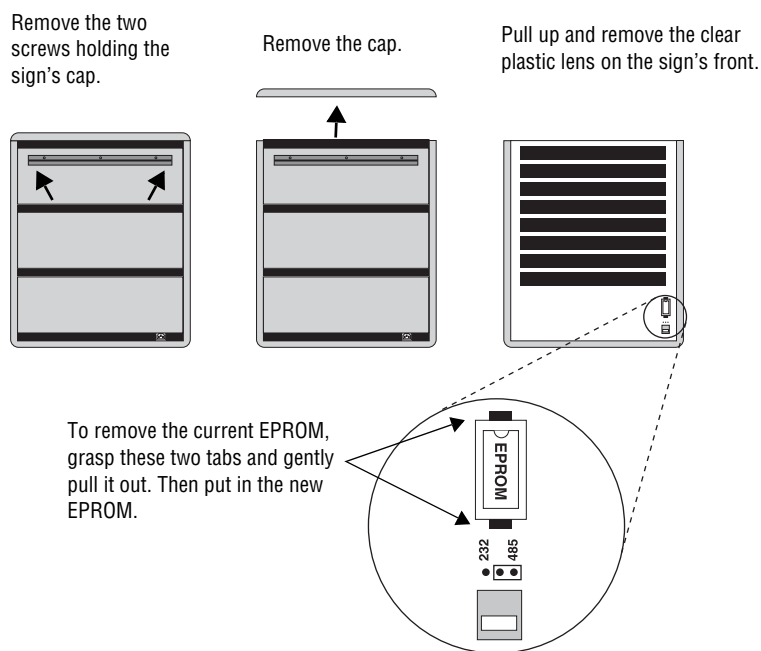
3. Re-assemble the sign.

Appendix F—DIP switch access (aluminum Director)

1. Remove power from the sign.

> ⚠ **WARNING**
>
> **Hazardous voltage.**
> Contact with high voltage may cause death or serious injury.
> Always disconnect power to unit prior to servicing. SM1000A
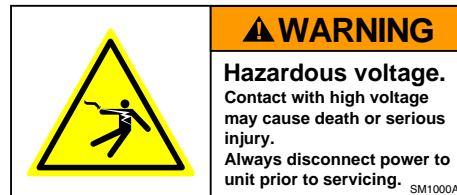
2. If the sign is mounted, remove it and place it on a flat surface.

3. Remove the access cap, located above the RS232/RS485 ports on the back of the sign, by gently pulling it out.

Access cap

(Back of sign)
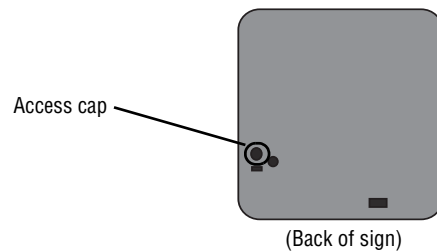
4. Use a screwdriver to move each DIP switch. See "Appendix G—DIP switch settings (aluminum Director)" on page 64 for settings.

least significant bit   1 2 3 4 5 6 7 8   most significant bit
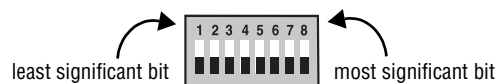
5. Reattach the access cap after making any changes.

Appendix G—DIP switch settings (aluminum Director)

Setting in Decimal	| 1	2	3	4	5	6	7	8		Setting in Decimal	| 1	2	3	4	5	6	7	8
00	0	0	0	0	0	0	0	0		51	0	0	1	1	0	0	1	1
01	0	0	0	0	0	0	0	1		52	0	0	1	1	0	1	0	0
02	0	0	0	0	0	0	1	0		53	0	0	1	1	0	1	0	1
03	0	0	0	0	0	0	1	1		54	0	0	1	1	0	1	1	0
04	0	0	0	0	0	1	0	0		55	0	0	1	1	0	1	1	1
05	0	0	0	0	0	1	0	1		56	0	0	1	1	1	0	0	0
06	0	0	0	0	0	1	1	0		57	0	0	1	1	1	0	0	1
07	0	0	0	0	0	1	1	1		58	0	0	1	1	1	0	1	0
08	0	0	0	0	1	0	0	0		59	0	0	1	1	1	0	1	1
09	0	0	0	0	1	0	0	1		60	0	0	1	1	1	1	0	0
10	0	0	0	0	1	0	1	0		61	0	0	1	1	1	1	0	1
11	0	0	0	0	1	0	1	1		62	0	0	1	1	1	1	1	0
12	0	0	0	0	1	1	0	0		63	0	0	1	1	1	1	1	1
13	0	0	0	0	1	1	0	1		64	0	1	0	0	0	0	0	0
14	0	0	0	0	1	1	1	0		65	0	1	0	0	0	0	0	1
15	0	0	0	0	1	1	1	1		66	0	1	0	0	0	0	1	0
16	0	0	0	1	0	0	0	0		67	0	1	0	0	0	0	1	1
17	0	0	0	1	0	0	0	1		68	0	1	0	0	0	1	0	0
18	0	0	0	1	0	0	1	0		69	0	1	0	0	0	1	0	1
19	0	0	0	1	0	0	1	1		70	0	1	0	0	0	1	1	0
20	0	0	0	1	0	1	0	0		71	0	1	0	0	0	1	1	1
21	0	0	0	1	0	1	0	1		72	0	1	0	0	1	0	0	0
22	0	0	0	1	0	1	1	0		73	0	1	0	0	1	0	0	1
23	0	0	0	1	0	1	1	1		74	0	1	0	0	1	0	1	0
24	0	0	0	1	1	0	0	0		75	0	1	0	0	1	0	1	1
25	0	0	0	1	1	0	0	1		76	0	1	0	0	1	1	0	0
26	0	0	0	1	1	0	1	0		77	0	1	0	0	1	1	0	1
27	0	0	0	1	1	0	1	1		78	0	1	0	0	1	1	1	0
28	0	0	0	1	1	1	0	0		79	0	1	0	0	1	1	1	1
29	0	0	0	1	1	1	0	1		80	0	1	0	1	0	0	0	0
30	0	0	0	1	1	1	1	0		81	0	1	0	1	0	0	0	1
31	0	0	0	1	1	1	1	1		82	0	1	0	1	0	0	1	0
32	0	0	1	0	0	0	0	0		83	0	1	0	1	0	0	1	1
33	0	0	1	0	0	0	0	1		84	0	1	0	1	0	1	0	0
34	0	0	1	0	0	0	1	0		85	0	1	0	1	0	1	0	1
35	0	0	1	0	0	0	1	1		86	0	1	0	1	0	1	1	0
36	0	0	1	0	0	1	0	0		87	0	1	0	1	0	1	1	1
37	0	0	1	0	0	1	0	1		88	0	1	0	1	1	0	0	0
38	0	0	1	0	0	1	1	0		89	0	1	0	1	1	0	0	1
39	0	0	1	0	0	1	1	1		90	0	1	0	1	1	0	1	0
40	0	0	1	0	1	0	0	0		91	0	1	0	1	1	0	1	1
41	0	0	1	0	1	0	0	1		92	0	1	0	1	1	1	0	0
42	0	0	1	0	1	0	1	0		93	0	1	0	1	1	1	0	1
43	0	0	1	0	1	0	1	1		94	0	1	0	1	1	1	1	0
44	0	0	1	0	1	1	0	0		95	0	1	0	1	1	1	1	1
45	0	0	1	0	1	1	0	1		96	0	1	1	0	0	0	0	0
46	0	0	1	0	1	1	1	0		97	0	1	1	0	0	0	0	1
47	0	0	1	0	1	1	1	1		98	0	1	1	0	0	0	1	0
48	0	0	1	1	0	0	0	0		99	0	1	1	0	0	0	1	1
49	0	0	1	1	0	0	0	1		100	0	1	1	0	0	1	0	0
50	0	0	1	1	0	0	1	0										

DIP switch settings (1 = ON, 0 = OFF)

Appendix H—RS232 in and echo out RS485 (aluminum Director)

When RS485 echo is enabled, incoming data (from either RS232 or Ethernet) is echoed (sent out the RS485 jack) to other networked signs. To enable RS485 echo, do the following:
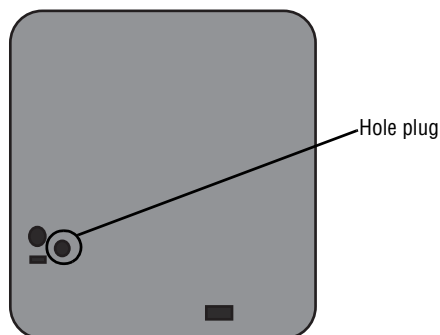
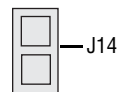1. Remove power from the sign.
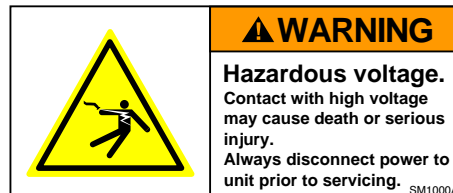
2. If the sign is mounted, remove it and place it on a flat surface.

3. Remove the hole plug, located to the right of the access cap and the RS232/485 ports on the back of the sign, by gently pulling it out.

4. Remove the shorting jumper from J14.

5. Reattach the hole plug to the back of the sign. When RS232 is sent into a sign, RS485 will automatically be sent out.

RS485 echo is useful when connecting multiple signs together because it can eliminate the need to use a Converter Box:

To next sign

To RS485 RJ11 jack

RS485 echo = disabled for other signs on the network

Modular Network Adapter (pn 4331-0602)

RS485 cable (pn 1088-8000)

To RS485 RJ11 jack

RS232 cable (pn 1088-8625 for 25-foot cable, pn 1088-8627 for 50-foot cable)

To RS485 RJ11 jack

RS232 adapter (pn 4370-0001C for 25-pin COM port, pn 1088-9108 for 9-pin COM port)

RS485 echo = enabled for this first sign on the network

To RS232 RJ11 jack

PC running messaging software, like Alpha Messaging Software Director Edition

Maximum 50 feet from PC to sign (If greater than 50 feet, a Converter Box must be used. See the **Networking Alpha Signs** manual for details.)