

BETA-BRITE®

Remote Control Programming Manual



*This manual is for the 1026 and 1040 models of the BetaBrite® sign.
To find the model of your BetaBrite® sign, turn it off and then on again.
The model number appears as follows:*

10404402d EZ95

The first four numbers ("1040") are the model number.

ADAPTIVE

Form No. 9704-001B
4/02/2001

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

Copyright © 1998-2001 Adaptive Micro Systems, Inc. All rights reserved.

The following are trademarks of Adaptive Micro Systems: Adaptive, Alpha, AlphaNet plus, AlphaEclipse, AlphaPremiere, AlphaTicker, AlphaVision, AlphaVision InfoTracker, Automode, BetaBrite, BetaBrite Director, BetaBrite Messaging Software, Big Dot, PPD, Smart Alec, Solar, TimeNet.

Visit our Internet World Wide Web sites:

<http://www.betabrite.com> and <http://www.adaptivedisplays.com>

or e-mail us at betabrite@ams-i.com or sales@ams-i.com

Contents

Warranty	iv
Return Merchandise Authorization	v
General information	1
Using a Remote Control to operate your sign.....	1
Basic sign operation	3
Turning a sign on and off.....	3
Setting a sign's time and date.....	4
Clearing a sign's memory	5
Setting a sign's password.....	6
What to do when you forget a sign's password.....	7
How to delete a sign's password	7
Sound control.....	7
Beginning text messaging	8
Example 1 — Using upper and lowercase in messages	8
Example 2 — Displaying messages in file name order (A, B, C, etc.).....	10
Example 3 — Displaying messages in time order	12
Example 4 — Changing the text of an existing message	14
Example 5 — Deleting messages	16
Advanced text messaging	17
Example 6 — Displaying the time and date	17
Example 7 — Using fonts and colors	20
Example 8 — Speeding up and slowing down messages	23
Example 9 — Special effects with modes (Trailing modes).....	25
Example 10 — International characters	26
Graphics	28
Example 11 — Creating a movie marquee	28
Example 12 — Mixing text with graphics	33
Example 13 — Deleting a graphic	35
Appendixes	36
Appendix A — Modes, fonts, and colors available	36
Appendix B — Sign diagnostic test.....	38
Appendix C — Connecting the sign to a computer.....	39
Appendix D — Updating the sign's firmware (EPROM).....	40
Quick Reference Card	41

Warranty

Adaptive Micro Systems, Inc. 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, Inc. 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, Inc., 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, Inc.

How to obtain warranty service

1. Contact Adaptive Micro Systems Customer Service at 414-357-2020.
2. Ask the Customer Account Specialist for a Return Merchandise Authorization (RMA) number. An RMA number is required to obtain warranty service.
3. Fill out the Return Merchandise Authorization (RMA) Form on the following page. To obtain warranty service, this form, including the RMA number, must accompany the product.
4. Follow the return instructions on the RMA Form to return to Adaptive Micro Systems, Inc.

Return Merchandise Authorization (RMA) Form

RMA Number: _____

Date of Purchase: _____

Company Name: _____

Contact Person: _____

Address: _____

Phone Number: _____

Fax Number: _____

Description of Problem: _____

Return Instructions

1. Obtain an RMA number from Adaptive Micro Systems at 414-357-2020. Ask for Customer Service.
2. Fill out this form and include proof of purchase receipt if product is under warranty.
3. Pack this form, the sign, keyboard and transformer in the original carton (or a suitable replacement). Please write the RMA number on the outside of the package. Any damage to the product during shipment is the responsibility of the freight company or the owner of the sign.
4. Ship the package, postage/shipping prepaid to:

Adaptive Micro Systems, Inc.
Attn: RMA No. _____
7840 North 86th Street
Milwaukee, WI 53224

PLEASE WRITE THE RMA NUMBER ON THE LABEL OF THE SHIPPING BOX. THANK YOU.

General information

You can operate a BetaBrite® sign in two ways:

- by using a hand-held Remote Control
- by using a single computer with special software (See “Appendix C — Connecting the sign to a computer” on page 39.)

Using a Remote Control to operate your sign

A Remote Control is a hand-held keyboard used to operate a BetaBrite® sign. Most of this manual shows you how to program messages on your sign using a Remote Control.

A Remote Control needs four AAA batteries to operate.

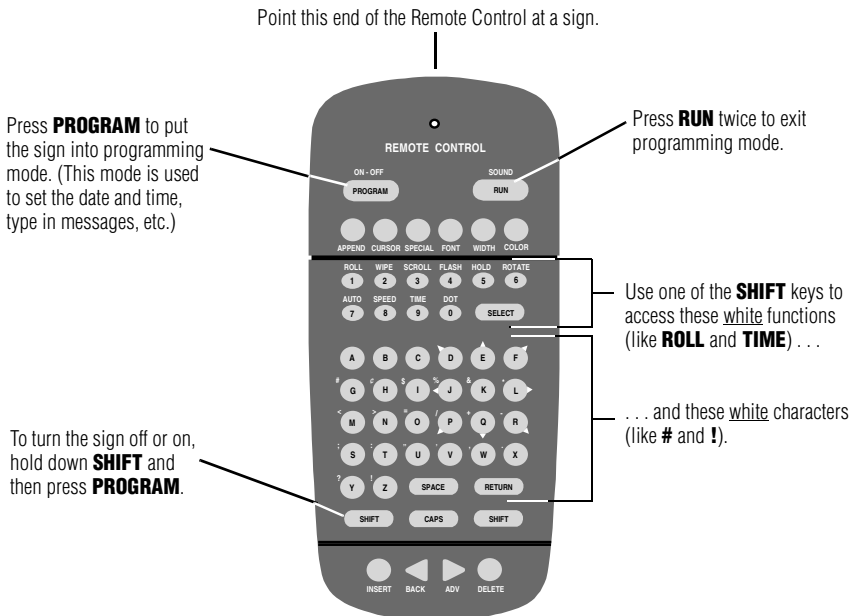
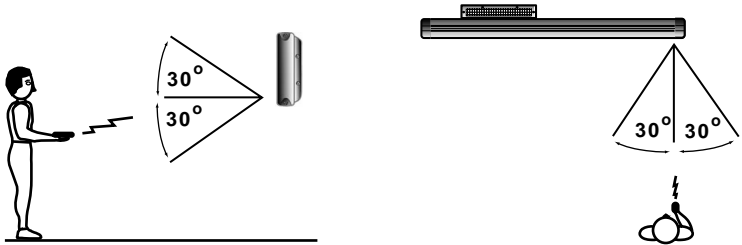


Figure 1: Infrared (IR) Remote Control keyboard

To program a sign with a 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 a 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

Figure 2: Using a Remote Control with a sign

Basic sign operation

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:

Holding down SHIFT and then pressing PROGRAM turns a sign off and on.

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 a sign starts up, the following will be displayed:



This is the software (or "firmware") inside the sign.

THEN



This is the amount of memory inside the sign.

THEN








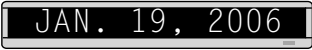



Because the time and date are not updated when the sign is off, the time and date must be re-programmed each time the sign is turned back on. (See "Setting a sign's time and date" on page 4.)

Setting a sign's time and date




Once set, a sign will remember the time and date unless the sign is unplugged or interrupted by a power loss.

NOTE: Because the BetaBrite® sign does not have a real-time clock, the date function can not be updated when power is off. The date and time must be re-programmed whenever the sign loses power for any reason.

Step	When you do this...	You see this...
1	Press PROGRAM .	
2	Press BACK until SET TIME appears.	
3	Press ADV .	 THEN 
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-hour (AM/PM) to 24-hour mode (0 - 23).	
5	Press BACK until SET DATE appears.	
6	Press ADV .	 THEN 
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, JAN 26, 2001 or 1/26/01, or 26/1/01, etc.	
8	After setting the date and time, press RUN twice to return to normal operation.	

Clearing a sign's memory

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












Step	When you do this...	You see this...
1	Press PROGRAM .	
2	Press BACK until CLEAR MEMORY appears.	
3	Press ADV .	
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





Some signs allow you to set a personal password to protect your messages and graphics from tampering by others.

NOTE: DON'T FORGET YOUR PASSWORD! If you do, you won't be able to operate the sign.

However, *if you do forget the password*, see "What to do when you forget a sign's password" on page 7.

Step	When you do this...	You see this...
1	Press PROGRAM .	
2	Press BACK until SET PASSWORD appears.	
3	Press ADV .	
4	Press Y to set a password.	
5	Type a 6-character password. (Only asterisks will appear on the sign as you type.)	
	Re-type the password when prompted.	THEN 
		THEN 
	CORRECT will appear if you entered the same password.	THEN 
	If you failed to type the same password, ERROR will appear, and you'll have to start over from Step 1.	THEN 
6	Press RUN twice.	
7	Press Y to password protect the sign. NOTE: If you select N , then a password will not be needed when you press PROGRAM .	 The sign will return to normal operation. Now, whenever you press PROGRAM , you'll have to type the password you just entered.

What to do when you forget a sign's password

Step	When you do this...	You see this...
1	Press PROGRAM .	
2	Hold down SHIFT and press L six times.	 THEN  THEN 
3	Enter a new password. (See "Setting a sign's password" on page 6.)	

How to delete 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 5.

Sound control

Normally, when you press a Remote Control key while programming a sign, the sign will beep.

If you want to turn the beeping off, hold down **SHIFT** and then press **RUN**. (To turn the beeping on again, repeat this.)

Beginning text messaging

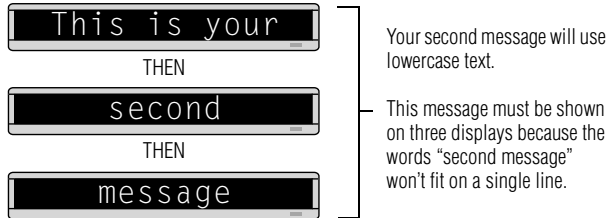
This section shows you how to start creating messages on your sign.

Example 1 — Using upper and lowercase in messages










In this first example, you'll display the text *THIS IS YOUR FIRST MESSAGE* like this:



... and then the text *This is your second message:*














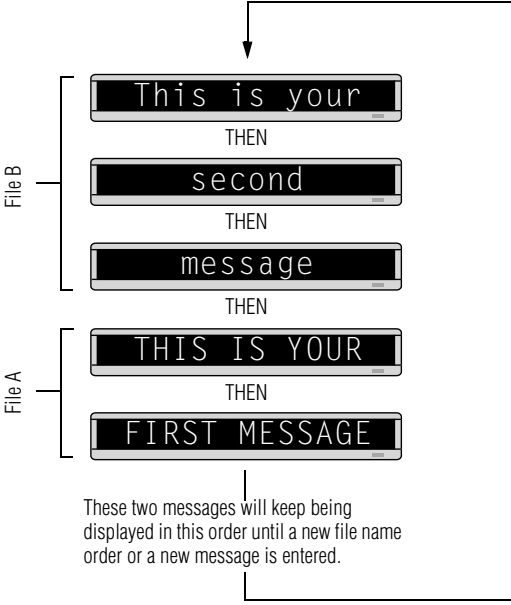
Step	When you do this...	You see this...
1	Press PROGRAM .	
2	Press ADV .	
3	Type <i>THIS IS YOUR FIRST MESSAGE</i> Note: If you make a mistake while typing, press DELETE to erase a letter.	

4	Press RUN twice.	  <p>Because Automode [AUT] was used in your message (see Step 3), the text of your message will be displayed in a variety of formats. For example, one of the formats (or modes) called Scroll moves your message from the bottom to the top of the sign.</p>
Now that the first message is done, we'll enter a second message which contains upper and lowercase characters.		
5	Press PROGRAM again.	
6	Press SELECT .	 <p>The <i>A</i> changes to a question mark (?) after pressing SELECT.</p>
7	Press B .	 <p>"B" is now the file name of your second message. If you pressed A instead of B, you would have written over the first message.</p>
8	Type <i>T</i> Press CAPS to switch to lowercase letters. Type <i>this is your second message</i>	 <p>Your message should look like this when you're done typing.</p>
9	Press RUN twice.	   <p>You should notice that . . .</p> <ul style="list-style-type: none"> The first message doesn't appear at all. (We'll fix this in the following example.)

Example 2 — Displaying messages in file name order (A, B, C, etc.)

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 file name (A, B, C, etc.) or in alphabetical order.

Step	When you do this...	You see this...
<p>This example continues where Example 1 left off. This example assumes that there are two messages (files A and B) in the sign: File A = <i>THIS IS YOUR FIRST MESSAGE</i> File B = <i>This is your second message</i></p>		
1	Press PROGRAM .	
2	Press RUN .	 TIME (or TIM) or DEMO (or CAN) may also appear here.
3	If <i>RUN</i> appears on the sign, go to the next step. Otherwise, press SELECT until <i>RUN</i> appears.	
4	Press B .	
5	Press RUN .	 THEN  THEN 
<p>You have just programmed the sign to run <i>only</i> message file B. Next, we'll program the sign to display message B first, then A.</p>		
6	Press PROGRAM .	
7	Press RUN .	







8	If <i>RUN</i> appears on the sign, go to the next step. Press SELECT until <i>RUN</i> appears.	
9	Press B , then A .	 <p>The order of these letters determines the order in which messages will appear on a sign. (In this case, message B will appear first, then message A.)</p>
10	Press RUN .	 <p>These two messages will keep being displayed in this order until a new file name order or a new message is entered.</p>
Using this method, you can program the order of some or all of the messages you've entered on a sign.		







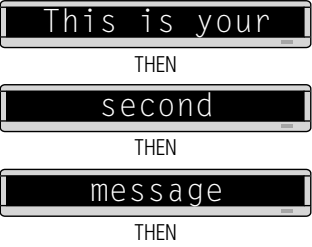

Example 3 — Displaying messages in time order

In Example 2, you set the order of messages by file name. 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 appear and disappear at times you specify.









NOTE: Unless a sign has a battery-backed clock, displaying messages in time order will only work so long as a sign is powered. When a sign without a battery-backed clock loses power, its internal clock becomes inaccurate and must be reset (see "Setting a sign's time and date" on page 4).
















Step	When you do this...	You see this...
<p>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 4.)</p> <p>This example continues where Example 1 left off.</p> <p>This example assumes that there are two messages (files A and B) in the sign: File A = <i>THIS IS YOUR FIRST MESSAGE</i> File B = <i>This is your second message</i></p> <p>In this example, we'll program the sign to display File A on Monday through Friday from 1:10 PM to 2:30 PM. We'll program the sign to always display File B.</p>		
1	Press PROGRAM .	
2	Press SELECT until <i>B</i> appears.	
3	Hold down SHIFT and press 9 for TIME .	 <p>— <i>ON ALWAYS</i> is the default setting for a message. A message set to <i>ON ALWAYS</i> will run continuously.</p> <p>Since file B is already set up, we'll go on to file A.</p>
4	Press PROGRAM .	
5	Press SELECT until <i>A</i> appears.	
6	Hold down SHIFT and press 9 for TIME .	 <p>First, we'll select the <i>ON</i> time or when the message <u>starts</u>.</p>

7	Press D (for day) until <i>M-F</i> (Monday through Friday) appears.	 <p>Press D to set the day, H for hour, and M for minute (in 10-minute increments).</p>
8	Press H (for hour) until <i>13:00</i> appears.	 <p>Hours must be represented in 24-hour or military style. So 1:00 PM = 13:00, 2:00 PM = 14:00, etc.</p>
9	Press M (for minute) until <i>13:10</i> appears.	 <p>Minutes are in increments of 10.</p>
10	Press SELECT .	 <p>After setting the <i>ON</i> time, select the <i>OFF</i> time or when the message <u>stops</u>.</p>
11 Repeat Steps 7, 8, and 9 to set the <i>OFF</i> time (<i>2:30</i> or <i>14:30</i> in this example.)		
12	Press RUN once. (If <i>TIME</i> does not appear, press SELECT until it does.)	 <p><i>RUN</i> or <i>DEMO</i> may also appear here.</p>
13	Press BA to set the display order of these two messages.	
14	Press RUN once.	<p>This message should appear continuously.</p> <p>File B</p>  <p>This message should only appear <u>between</u> the <i>ON</i> and <i>OFF</i> times you set.</p> <p>File A</p> 

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:





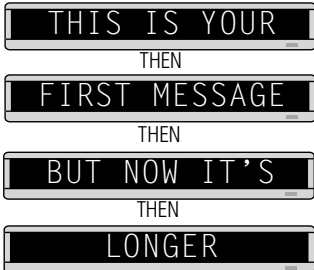
Step	When you do this...	You see this...
<p>This example continues where Example 2 left off. This example assumes that there are two messages (files A and B) in the sign: File A = <i>THIS IS YOUR FIRST MESSAGE</i> File B = <i>This is your second message</i> and that File B, then File A is displayed.</p> <p>In this example, we'll change File A and File B to the following: File A = <i>THIS IS YOUR FIRST MESSAGE, BUT NOW IT'S LONGER</i> File B = <i>This is the second message (your changed to the)</i></p>		
1	Press PROGRAM .	
2	Press SELECT until <i>B</i> appears.	
3	Press ADV until the space after <i>your</i> appears.	 <p style="text-align: center;">We're going to delete <i>your</i> and replace it with <i>the</i>.</p>
4	Press DELETE until <i>your</i> (and the space after it) are erased.	
5	Press INSERT .	 <p style="text-align: center;">Text you type now will be inserted here—after the space following <i>is</i>.</p>
6	Type <i>the</i> (and then SPACE).	
7	Press INSERT to turn text insertion off.	
8	Press ADV until the first few letters of <i>second</i> appear.	 <p style="text-align: center;"><i>the</i> has replaced <i>your</i></p>

9	Press APPEND to go to the end of the message. DON'T OMIT THIS STEP.	
10	Press RUN twice.	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">FileB</div> <div style="border-left: 1px solid black; padding-left: 10px;">  THEN  THEN  </div> </div>
Next, we'll add text to the end of File A.		
11	Press PROGRAM .	
12	Press SELECT until <i>A</i> appears on the sign.	
13	Press APPEND .	 <div style="margin-left: 100px;"> APPEND takes you to the <u>end</u> of a message. </div>
14	To type a comma, hold down SHIFT and press W .	
15	Press SPACE and then type <i>BUT NOW IT</i> .	
16	To type an apostrophe, hold down SHIFT and press V .	
17	Type <i>S LONGER</i> .	
18	Press RUN twice.	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">FileA</div> <div style="border-left: 1px solid black; padding-left: 10px;">  THEN  THEN  THEN  </div> </div>

Example 5 — Deleting messages

To delete all the messages in a sign, see “Clearing a sign’s memory” on page 5.

However, if you only want to delete selected messages, then use the method shown in this example.



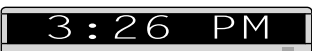
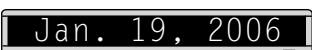




Step	When you do this...	You see this...
<p>This example continues where Example 4 left off.</p> <p>This example assumes that there are two messages (files A and B) in the sign: File A = <i>THIS IS YOUR FIRST MESSAGE, BUT NOW IT'S LONGER</i> File B = <i>This is the second message</i></p> <p>In this example, we'll delete File B.</p>		
1	Press PROGRAM .	
2	Press SELECT until <i>B</i> appears on the sign.	
3	Press DELETE .	
4	Press Y to delete the file.	
5	Press RUN twice.	<p>File A</p> 







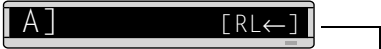


Advanced text messaging





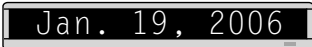
Before attempting the following, make sure you're familiar with the previous examples in the "Beginning text messaging" section of this manual.

Example 6 — Displaying the time and date

NOTE: Because the time and date are not updated when the sign is off, the time and date must be re-programmed each time the sign is turned back on.

Step	When you do this...	You see this...
<p>In this example, we'll create a message that continuously displays the current time and date:</p> <div style="text-align: center;">  <p>THEN</p>  <p>THEN</p>  <p>THEN</p>  </div> <p>The time will be displayed in extra wide letters.</p>		
1	Delete all the messages currently stored in the sign. (See "Clearing a sign's memory" on page 5 or "Example 5 — Deleting messages" on page 16.)	
2	Press PROGRAM .	
3	Press SELECT .	
4	Press A .	
5	Hold down SHIFT and press 1 for ROLL .	 <p>This stands for Roll mode.</p>

7	<p>Press SELECT to change the Roll direction to ↓ (down).</p>	 <p>Press SELECT until the Roll direction changes to down: [RL↑] = Roll up a message [RL↓] = Roll down a message [RL ←] = Roll a message to the left [RL →] = Roll a message to the right [RL <>] = Roll a message in from both sides of the sign [RL <×] = Roll a message out from the middle of the sign</p>
8	Type <i>R</i>	
9	<p>Using CAPS to switch between uppercase and lowercase letters, type the following: <i>osco Advertising</i></p>	
<p>We'll Roll the time in from the bottom to the top of the sign.</p>		
10	<p>Hold down SHIFT and press 1 for ROLL.</p>	
11	<p>Press WIDTH to display the time in wide characters.</p>	 <p>This will display the time in wide letters.</p>
12	<p>Hold down SHIFT and press 9 for TIME.</p>	 <p>This inserts the current time (in wide characters).</p>
<p>Next, we'll Roll the date in from the left to the right of the sign.</p>		
13	<p>Hold down SHIFT and press 1 for ROLL. Then press SELECT to until the Roll direction changes to ←</p>	 <p>We'll make the <u>date</u> will roll to the left.</p>
14	<p>Press WIDTH to turn off wide characters.</p>	 <p>[SLM] means the following characters won't be wide.</p>
15	<p>Press SPECIAL.</p>	

16	Press M	 <p>Pressing SPECIAL and M inserts the current date into a message.</p>
17	Press RUN twice to see the message.	 <p>THEN</p>  <p>THEN</p>  <p>THEN</p> 

Example 7 — Using fonts and colors

Fonts

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 (like 12 point or 14 point), bold or italic, etc.:

This is Times — a serif font.

This is Helvetica — a sans serif font.

On this sign, the following fonts — called [SS7], [SS5], and [SRF] — are available:



Also, any of the sign’s fonts can be made bold (or wider) by using the **WIDTH** button.

To determine what fonts are available on your sign, see “Appendix A — Modes, fonts, and colors available” on page 36.













Colors








Your sign can display up to eight colors — [GRN] for green, [RED] for red, etc. — plus four special color combinations.

To determine what colors are available on your sign, see “Appendix A — Modes, fonts, and colors available” on page 36.

The following examples demonstrate how to use fonts and colors on your sign:

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 5 or “Example 5 — Deleting messages” on page 16.)	

2	Press PROGRAM .	
3	Press ADV .	
4	Hold down SHIFT and press 5 for HOLD .	 <p data-bbox="697 423 934 444">Hold mode turns off Automode.</p>
5	Press COLOR until <i>[GRN]</i> (green) appears.	 <p data-bbox="397 565 815 586">We'll make the first part of the message appear in green.</p>
6	Press FONT to select <i>[SRF]</i> (the serif font).	
7	Using CAPS and SHIFT when needed, type <i>This is SRF</i>	 <p data-bbox="447 781 788 829">As you type, the font you selected will appear as it will actually be displayed on the sign.</p>
8	Press RETURN to start a new line of text.	 <p data-bbox="586 932 834 953">This symbol indicates RETURN.</p>
9	Press COLOR until <i>[AMB]</i> appears.	 <p data-bbox="529 1058 870 1079">All the text after [AMB] will be amber colored.</p>
10	Press WIDTH to display wide text.	 <p data-bbox="751 1192 884 1213">[WID] = wide text</p>
11	Using CAPS and SHIFT when needed, type <i>SRF Wide</i>	
12	Press RETURN to start a new line of text.	
13	Press WIDTH again to turn wide characters off.	

<p>14</p>	<p>Press COLOR until [RB1] (rainbow 1) appears.</p>	 <p>[SLM] = regular or "slim" text</p> <p>[RB1] = rainbow 1 colored text.</p>
<p>15</p>	<p>Press FONT to select the [SS5] font.</p>	 <p>[SS5] = the smallest font</p>
<p>16</p>	<p>Type <i>THIS IS SS5</i></p> <p>NOTE: Only uppercase character can be used with this font.</p>	
<p>17</p>	<p>Press RUN twice to see what you've typed.</p>	 <p>— This text should appear in green.</p> <p>THEN</p>  <p>THEN</p>  <p>— This text should appear in amber.</p> <p>THEN</p>  <p>— This text should appear in rainbow 1.</p>

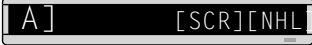

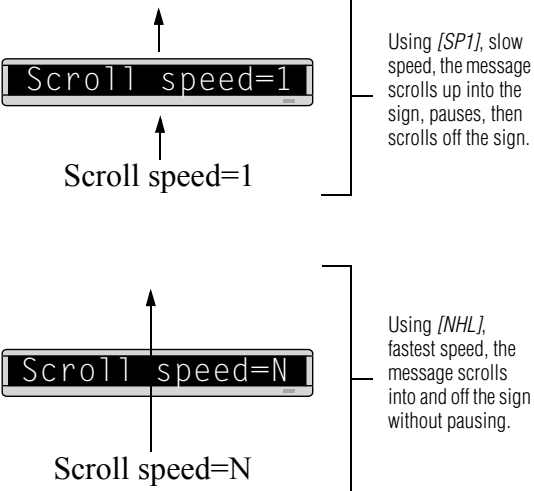
Example 8 — Speeding up and slowing down messages

Messages can be sped up or slowed down using the **SPEED** mode. Once you pick a mode, like **ROTATE**, a speed can be selected by selecting **SPEED** on the Remote Control. Then press **SELECT** to change the speed:



Here's an example of how to vary the speed of the **SCROLL** mode of a message:







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 5 or "Example 5 — Deleting messages" on page 16.)	
2	Press PROGRAM .	
3	Press ADV .	
4	Select SCROLL . (Hold down SHIFT and press 3 .)	 [SCR] = SCROLL mode, which we'll use to demonstrate message speed.
5	Select SPEED . (Hold down SHIFT and press 8 .)	 [SP4] is the default speed setting.
6	Press SELECT until [SP1] (very slow) appears.	 [SP1] = very slow
7	Type <i>Scroll speed=1</i>	
8	Select SCROLL again.	
9	Select SPEED again.	

<p>10</p>	<p>Press SELECT until [NHL] appears. (No Hold = very fast)</p>	
<p>11</p>	<p>Type <i>Scroll speed=N</i></p>	
<p>12</p>	<p>Press RUN twice to see your message. The message <i>Scroll speed=1</i> should scroll up very slowly. However, the message <i>Scroll speed=N</i> should scroll up without pausing at all.</p>	 <p>Using [SP1], slow speed, the message scrolls up into the sign, pauses, then scrolls off the sign.</p> <p>Using [NHL], fastest speed, the message scrolls into and off the sign without pausing.</p>

Example 9 — Special effects with modes (Trailing modes)

Modes, like **ROTATE** and **ROLL**, are used to create special effects with messages. Typically modes are used once at the beginning of a message. However, a mode can also be placed at the end of a message (called a “trailing mode”) to create a special effect.

NOTE: The following can not be used as a trailing mode: **CONDENSED ROTATE, SCROLL, SLIDE, SNOW, and SPRAY.**

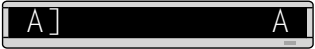
Step	When you do this...	You see this...
1	Delete all the messages currently stored in the sign. (See “Clearing a sign’s memory” on page 5 or “Example 5 — Deleting messages” on page 16.)	
2	Press PROGRAM .	
3	Press ADV .	
4	Hold down SHIFT and press 4 for FLASH .	
5	Type <i>ATTENTION!</i>	
6	Hold down SHIFT and press 1 for ROLL .	 This is the trailing mode. The ROLL mode “trails” the first mode, FLASH .
7	Type <i>Trailing mode</i>	
8	Press RUN twice to see trailing mode in action. <i>ATTENTION!</i> should flash and then roll off the display.	

Example 10 — International characters




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

NOTE: International characters can not be used with the small [SS5] font.

The following table summarizes all the international characters that can be used:

											
	Type a Base Character, like A.										
	Then press SELECT to choose an international character.										
Base Characters	(Use the CAPS button on the Remote Control for the 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	ú	ÿ	?	!	£
	ã	C	è	ì	N	ò	Û	y			¥
	Ä	c	ë	í	n	Ö	ú				f
	Å		È	i		ó	U				\$
	æ		E			o	u				
	Æ		e			O					
	á					o					
	à										
À											
a											

The following example shows how to use international characters in a message:

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 5 or "Example 5 — Deleting messages" on page 16.)	
2	Press PROGRAM .	
3	Press ADV .	
4	Using CAPS and SHIFT when needed, type <i>Submit your re</i>	

5	Press SELECT until <i>é</i> appears.	An LCD display showing the text "A]ubmit your ré". The characters are in a monospaced font, and the display is framed by a dark border.
6	Type <i>sume</i>	An LCD display showing the text "A] your résumé". The characters are in a monospaced font, and the display is framed by a dark border.
7	Press SELECT until <i>é</i> appears.	An LCD display showing the text "A] your résumé". The characters are in a monospaced font, and the display is framed by a dark border.
8	Press RUN twice to see your message satellite.	

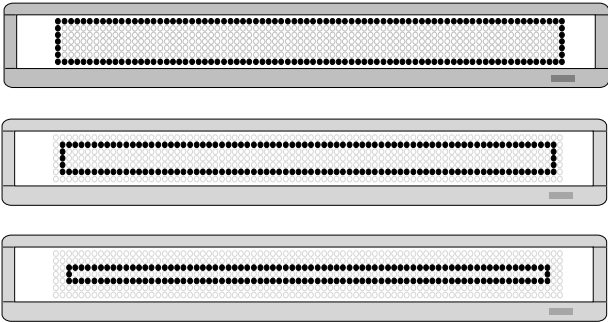
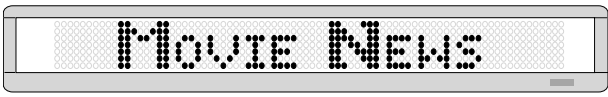


Graphics

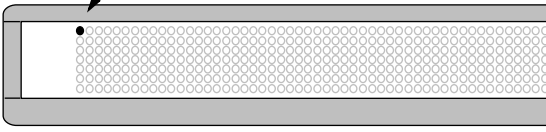
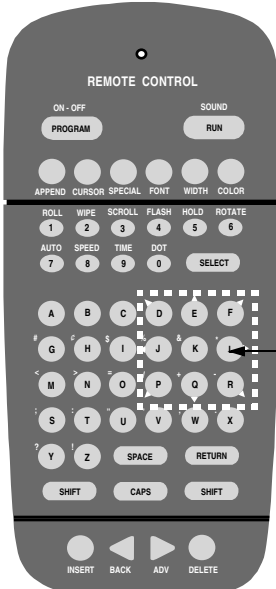
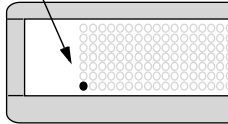
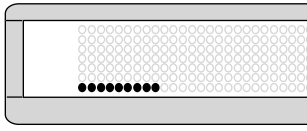
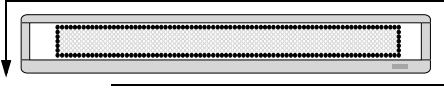
In addition to pre-programmed or “canned” graphics (see “Sign graphics” on page 43), you can create your own custom graphics using DOTS files.





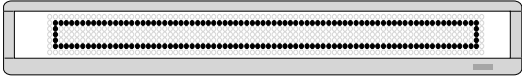
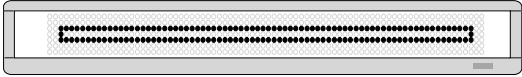







You can display a DOTS graphic that you create either by itself or with text.











NOTE: After you create a DOTS graphic, *to display it on your sign*, the DOTS graphic *must* be placed in a text file—even if you just want to display the graphic all by itself.

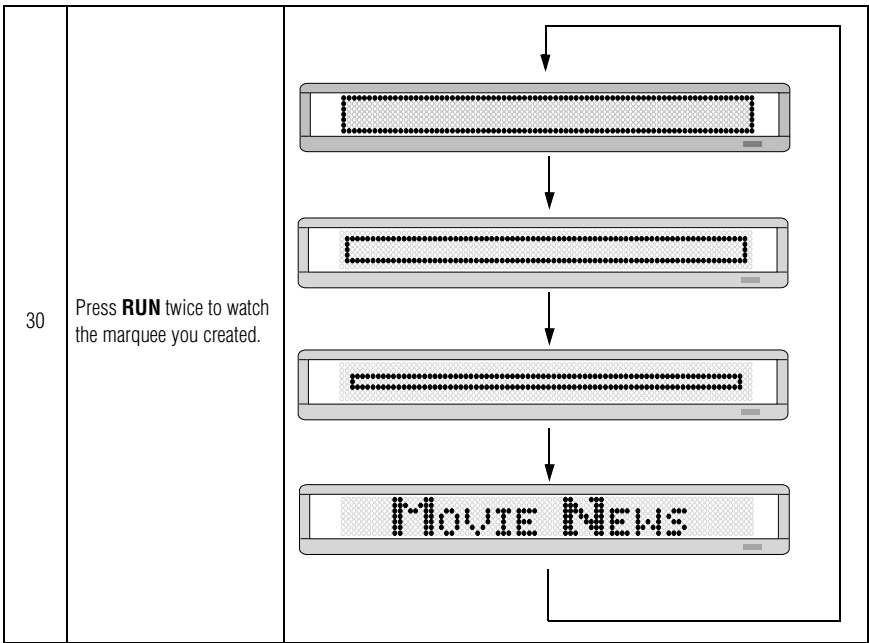
Example 11 — Creating a movie marquee

Step	When you do this...	You see this...
<p>In this example, we'll create three graphics (or DOTS files) and combine them with text to make a flashing marquee:</p> <div style="display: flex; align-items: center;"> <div style="width: 20%; padding-right: 10px;"> <p>First you'll create these three graphics files (called DOTS files A, B, C).</p> </div> <div style="width: 80%;">  </div> </div> <p>Then this text will be added after the three graphic files.</p> <div style="width: 80%;">  </div>		
1	Delete all the messages currently stored in the sign. (See “Clearing a sign’s memory” on page 5 or “Example 5 — Deleting messages” on page 16.)	
2	Press PROGRAM .	
3	Press BACK .	 <p>The name of your first DOTS graphics is <i>A</i>. (The second one will be named <i>B</i> and the third one <i>C</i>.)</p>

<p>4</p>	<p>Press ADV.</p>	<p>The blinking DOTS cursor keeps track of where you're drawing.</p> 
<p>5</p>	<p>Press Q until the DOTS cursor is on the bottom.</p>	 <p>Keep pressing Q until the DOTS cursor moves here.</p>  <p>These keys <i>move</i> the DOTS cursor.</p> <p>Also, you can <i>draw</i> (or erase) dots when you hold down SHIFT and press one of these keys.</p>
<p>6</p>	<p>Hold down SHIFT and press L to draw a line across the entire bottom of the display.</p>	<p>SHIFT + L →</p> 
<p>7</p>	<p>Complete DOTS graphic <i>A</i> by using E, J, and Q keys.</p> <p>NOTE: Remember: hold down SHIFT with these keys to actually draw.</p>	<p>SHIFT + J</p>  <p>SHIFT + Q SHIFT + E</p>




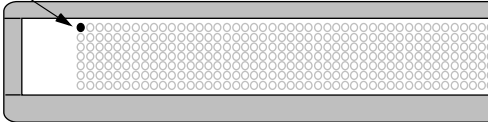
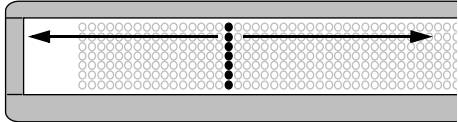
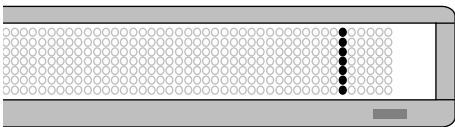
8	Press RUN .	
9	Then press Y to save graphic <i>A</i> .	
10	Press SELECT until a question mark appears.	
11	Type <i>B</i> as the name of the next graphics file.	
12	<p>Repeat the previous steps to draw graphics <i>B</i> and <i>C</i>. (Both are just smaller versions of graphic <i>A</i>.)</p> <p>Use the COLOR key to make all the dots in graphic <i>B</i> green, and all the dots in graphic <i>C</i> amber.</p>	<p style="text-align: center;">DOTS graphic <i>B</i></p>  <p style="text-align: center;">DOTS graphic <i>C</i></p> 
<p>NOTE: In order to display a DOTS graphic, it must be placed in a text message. In the following steps, we'll create a text message and add the three DOTS graphics just created.</p>		
13	Press BACK to return to <i>PROG TEXT</i> .	
14	Press SELECT until a question mark appears.	
15	Press A .	
16	Hold down SHIFT and press 4 for FLASH .	
17	Hold down SHIFT and press 8 for SPEED .	
18	Press SELECT until <i>[SP5]</i> appears. (This is the fastest speed.)	
19	Insert the first DOTS graphic you created (file <i>A</i>) by holding down SHIFT and pressing 0 .	 <p style="text-align: center;">The letter <i>A</i> is the name of the graphic file.</p>

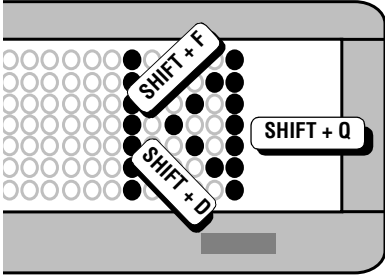








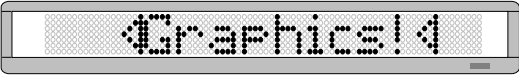
20	<p>Insert the second DOTS graphic by holding down SHIFT and pressing 0 again.</p> <p>Then press SELECT until the letter <i>B</i> appears.</p>	
21	<p>Insert the third and final DOTS graphic by holding down SHIFT and pressing 0 again.</p> <p>Then press SELECT until the letter <i>C</i> appears.</p>	
<p>Now we'll add the message <i>Movie News</i> after the three graphics:</p>		
22	<p>Press FONT until <i>[SRF]</i> appears.</p>	
23	<p>Type the letter <i>M</i></p>	
24	<p>Press FONT until <i>[SS5]</i> appears.</p>	 <p style="text-align: center;">[SS5] is the <u>smallest</u> character font.</p>
25	<p>Type <i>ovie</i> and then press SPACE.</p>	
26	<p>Press FONT until <i>[SRF]</i> appears again.</p>	
27	<p>Type the letter <i>N</i></p>	
28	<p>Press FONT until <i>[SS5]</i> appears again.</p>	
29	<p>Type <i>ews</i></p>	



Example 12 — Mixing text with graphics

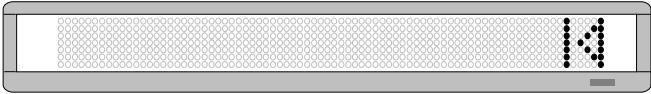



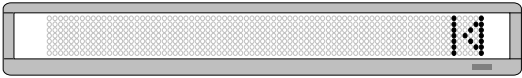
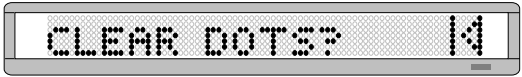
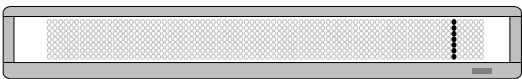
In this example, we'll create a graphic and combine it with text:

Step	When you do this...	You see this...
	<p>These triangle graphics (two copies of a single DOTS file) will be combined with the text <i>Graphics!</i></p>	
1	<p>Delete all the messages currently stored in the sign. (See "Clearing a sign's memory" on page 5 or "Example 5 — Deleting messages" on page 16.)</p>	
2	<p>Press PROGRAM.</p>	
3	<p>Press BACK.</p>	 <p>The name of your DOTS graphics file will be A.</p>
4	<p>Press ADV.</p>	<p>The blinking DOTS cursor keeps track of where you're drawing.</p> 
5	<p>Press X to move a vertical line across the sign. This reduces the size of the drawing area.</p> <p>Keep pressing X until there are 5 dots between the vertical line and the end of the sign.</p> <p>NOTE: If you don't reduce the graphic area, the graphic would take up the entire area of the sign.</p>	<p>W moves this line left (increases drawing area) X moves this line right (reduces drawing area)</p>  <p>The line should end up 5 dots from the end. So our drawing area will be 5 dots wide by 7 dots high.</p> 

6	<p>Draw the following graphic using the keys indicated.</p>	 <p>Remember: To just move the cursor, don't hold down SHIFT.</p>
7	<p>Press RUN twice.</p>	
8	<p>Press BACK until <i>PROG TEXT</i> appears.</p>	
9	<p>Press ADV.</p>	
10	<p>Hold down SHIFT and press 6 for ROTATE.</p>	
11	<p>Hold down SHIFT and press 0 to insert your DOTS graphic.</p>	 <p>The <i>A</i> is the file name of your DOTS graphic.</p>
12	<p>Using CAPS and SHIFT when necessary, type <i>Graphics!</i> (Place a space before <i>Graphics!</i>)</p>	 <p>Place a space before the word <i>Graphics!</i> (Otherwise, the first triangle will appear too close.)</p>
13	<p>Hold down SHIFT and press 0 to insert your DOTS graphic again.</p>	
14	<p>Press RUN twice to see your graphic and text message move across the sign.</p>	 <p>NOTE: If you had <u>not</u> placed a space after the first triangle graphic, the message would look like the following:</p> 

Example 13 — Deleting a graphic

If you want to delete an entire DOTS graphic file, use this example as a guide:

Step	When you do this...	You see this...
<p>This is a continuation of the previous example.</p> <p>This example assumes that the following graphic is in DOTS file A:</p> 		
1	Press PROGRAM .	
2	Press BACK .	
3	Press SELECT .	
4	Type the letter of the graphic you want to delete. (In this case, type A.)	
5	Press Z .	
6	Press Y to delete the graphic. (Or N if you don't want to delete it.)	
7	Press RUN four times to return to normal operation.	

Appendixes

Appendix A — Modes, fonts, and colors available

Modes determine the way text and graphics move on a sign. For example, the **ROTATE** mode moves a message across a sign from right to left. Fonts are the size and shape of text characters.

The letters in brackets — like [AUT] and [RED] — are what will appear on the sign:

Modes available

- Automode — [AUT] — **SHIFT + 7**.
- Flash — [FLS] — **SHIFT + 4**.
- Hold — [HLD] — **SHIFT + 5**.
- Interlock — [SPC]3 — **SPECIAL + 3**.
- Roll — [RL↑] — **SHIFT + 1**. Use **SELECT** to change roll direction.
- Rotate — [ROT] or [CRT] — **SHIFT + 6**. Use **SELECT** to change between the two.
- Scroll — [SCR] — **SHIFT + 3**.
- Slide — [SPC]5 — **SPECIAL + 5**.
- Snow — [SPC]2 — **SPECIAL + 2**.
- Sparkle — [SPC]1 — **SPECIAL + 1**.
- Spray — [SPC]6 — **SPECIAL + 6**.
- Starburst — [SPC]7 — **SPECIAL + 7**.
- Switch — [SPC]4 — **SPECIAL + 4**.
- Twinkle — [SPC]0 — **SPECIAL + 0**.
- Wipe — [WI↑] — **SHIFT + 2**. Use **SELECT** to change wipe direction.

Fonts available

All these fonts can also be displayed wider using **WIDTH**:




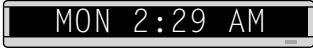

- 7-row sans serif — [SS7]
- 7-row serif — [SRF]
- 5-row sans serif — [SS5]

Colors available

- Red — [RED]
- Light red — [LRD]
- Green — [GRN]
- Light green — [LGN]
- Amber — [AMB]
- Brown — [BRN]
- Orange — [ORG]
- Yellow — [YEL]
- Rainbow 1 — [RB1]
- Rainbow 2 — [RB2]
- Mixed colors — [MIX]

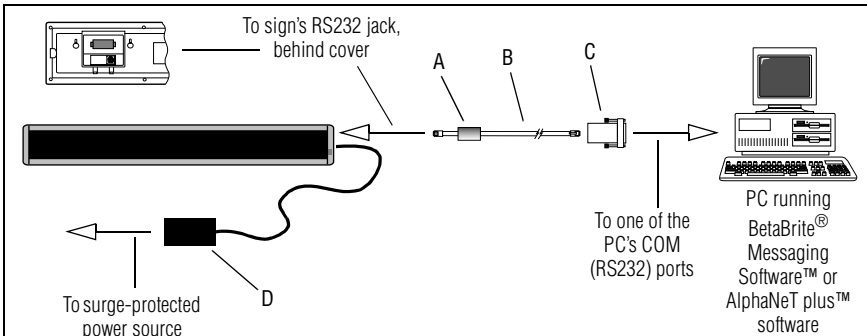
Appendix B — Sign diagnostic test

Your sign can do a self test to determine if all the LEDs (or incandescent lights) are working properly.

Step	When you do this...	You see this...
1	Press PROGRAM .	
2	Press BACK until SET TIME AND DAY or SET TIME appears.	
3	Press ADV .	 THEN 
4	Type <i>TEST</i> NOTE: This test <u>deletes</u> all messages in the sign. However, if you type the letter <i>R</i> immediately after typing <i>TEST</i> , your messages will be preserved.	 THEN A series of test displays will appear.
56	Press PROGRAM to exit the self-test mode.	

Appendix C — Connecting the sign to a computer

Messages can also be programmed into the sign using a computer. To do this, you'll need special connectors and computer software, either AlphaNet plus™ or BetaBrite® Messaging Software™. Follow the instructions that come with the software CD to program messages.



NOTE: A BetaBrite® sign can only be connected to one computer. It can not be networked to more than one computer or to another BetaBrite® sign.

NOTE: Use only the power supply (Item D) that came with the sign. Set it flat, so that it's not dangling by the cord. Do not fasten it to anything.

NOTE: Connecting a surge protector between the electrical outlet and the sign is highly recommended. Message data can be lost or the sign could be damaged by power fluctuations.

NOTE: Electrostatic discharge, or "carpet shocks", can also cause data loss and damage to the sign. Avoid touching the sign after it's been installed, especially in cold, dry winter air.

NOTE: Do NOT connect a telephone to the sign's RS232 jack and do NOT try to substitute ordinary telephone wire for any parts listed below.

Item	Part #	Description
A	—	Ferrite (ferrite end towards sign), supplied with data cable
B	1088-8625	25-foot 6-conductor RS232 data cable
	1088-8627	50-foot 6-conductor RS232 data cable
C	4370-0001C	25 pin sub-D/to 6 pos. RJ11 adapter
	1088-9108	9 pin sub-D/to 6 pos. RJ11 adapter
D	—	Power supply
E	1102-9102	BetaBrite® Messaging Software™
	1092-7827	AlphaNet plus™ software

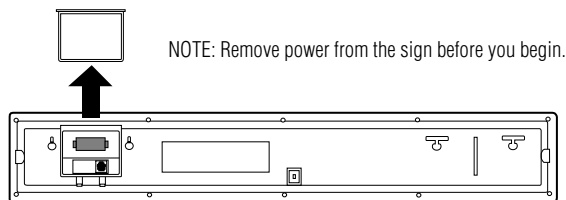
NOTE: BetaBrite® Messaging Software™ is available for online purchase through <http://www.BetaBrite.com>. Click on "Shop @ BetaBriteDirect" to submit an order.

Appendix D — Updating the sign's firmware (EPROM)

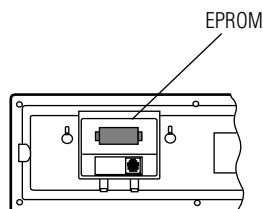
Your sign has an internal chip or EPROM that is used to control the sign. From time to time, the firmware in this EPROM is updated and the EPROM must be changed.

NOTE: Internal components may be damaged by “static electricity”, or electrostatic discharge. Follow these guidelines to prevent weakening of circuits that may not be immediately evident:

- Discharge any static charge you may have built up before handling static-sensitive devices. Touch something metal before putting your hand on sensitive components.
 - Put on a grounded, anti-static wristband or heel strap.
 - Until you're ready to handle them, keep static-sensitive parts in an anti-static container.
 - Do NOT touch EPROM leads. If they become bent, use a tool to straighten them.
 - Do your work on a static-free surface and always use grounded soldering, test and assembly tools.
 - For more information, refer to Adaptive Tech Memo 00-0005, “Guidelines for Controlling Electrostatic Discharge Damage”, available at <http://www.adaptivedisplays.com>.
1. After removing power from the sign, slip off the access panel on the back of the sign:

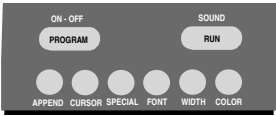


2. Using the top and bottom tabs on the EPROM socket, gently pull the EPROM out of the sign. Then place the new EPROM in the empty socket and replace the access cover:



Quick Reference Card

Message control keys

	
PROGRAM	<p>To turn the sign on or off, hold down SHIFT and then press PROGRAM.</p> <p>To enter messages, set the date and time, clear memory, etc., press PROGRAM and then:</p> <div style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> PROG TEXT A </div> <p style="text-align: center;">OR</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Press BACK to select one of the following:</p> <p>PROG DOTS A — press ADV to create a graphic.</p> <p>SET TIME — press ADV to set the time.</p> <p>SET DATE — press ADV to set the date.</p> <p>SET PASSWORD — press ADV to set a password to prevent someone from changing the sign's text.</p> <p>CLEAR MEMORY — press ADV to erase all messages.</p> </div> <div style="width: 45%; text-align: right;"> <p>Press ADV to enter a message in file A.</p> </div> </div>
	<p>RUN Press twice to exit PROGRAM mode.</p> <p>APPEND When editing text, this takes you to the end of a message.</p> <p>CURSOR Not used.</p> <p>SPECIAL Used to set various text modes. (See "Display modes and special keys" on page 42.)</p> <p>FONT Changes the font—[SS7], [SRF], or [SS5]—used in a message. (See "Example 7 — Using fonts and colors" on page 20.)</p> <p>WIDTH Changes the width of a font. Text that appears after [WID] will look bold. To return to normal text, press WIDTH again and [SLM] will appear. (See "Example 7 — Using fonts and colors" on page 20.)</p> <p>COLOR Changes the color of text.</p>

Display modes and special keys

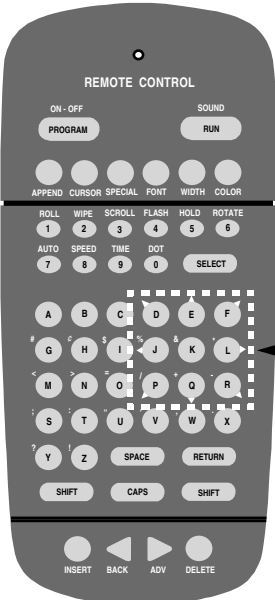


ROLL	Hold down SHIFT and press 1 to use the Roll mode in a message. Use SELECT to change the direction of the roll.
WIPE	Hold down SHIFT and press 2 to use the Wipe mode in a message. Use SELECT to change the direction of the wipe.
SCROLL	Hold down SHIFT and press 3 to use the Scroll mode in a message.
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	Hold down SHIFT and press 6 to use the Rotate mode in a message.
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. Use SELECT to set the speed (NHL = fastest, SP1 = slowest).
TIME	Hold down SHIFT and press 9 to include the time in a message.
Date	Press SPECIAL and then M to include the date in a message.
Twinkle	Press SPECIAL . Then press 0 .
Sparkle	Press SPECIAL . Then press 1 .
Snow	Press SPECIAL . Then press 2 .
Interlock	Press SPECIAL . Then press 3 .
Switch	Press SPECIAL . Then press 4 .
Slide Across	Press SPECIAL . Then press 5 .
Spray	Press SPECIAL . Then press 6 .
Starburst	Press SPECIAL . Then press 7 .
Carriage return	Press RETURN .
Half space	Hold down SHIFT and then press SPACE .

Sign graphics

"Thank You"	Press SPECIAL . Then press S .
"No Smoking"	Press SPECIAL . Then press U .
"Don't Drink and Drive"	Press SPECIAL . Then press V .
Running Animal	Press SPECIAL . Then press W .
Fireworks	Press SPECIAL . Then press X .
Turbo Car	Press SPECIAL . Then press Y .
Cherry Bomb	Press SPECIAL . Then press Z .
Welcome	Press SPECIAL . Then press 8 .
Slot Machine	Press SPECIAL . Then press 9 .

How to create a graphic



- Press **PROGRAM** and then **BACK**:

PROG DOTS A
- Next, press **ADV**. The DOTS cursor will be in the upper left hand corner of the sign.
- Use the direction keys (D, E, F, etc.) to move the DOTS cursor in the direction indicated by the white arrows.
- To draw a line, hold down **SHIFT** while pressing one of the direction keys. For example, to draw a diagonal line, hold down the **SHIFT** while pressing **R**.
- When you're done, press **RUN** twice.
- Press **BACK** until this display appears:

PROG TEXT A
- Press **SELECT** and then a letter, like **A**:

A]
- Enter the DOTS file. For example, hold down **SHIFT** and press **6** for **ROTATE**. Then hold down **SHIFT** and press **0** for **DOT**:

A] [ROT][DOT]A]
- Press **RUN** twice to display the graphic.

