

# 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. 9704-0001B  
4/02/2001

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

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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](mailto:betabrite@ams-i.com) or [sales@ams-i.com](mailto:sales@ams-i.com)

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# 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.

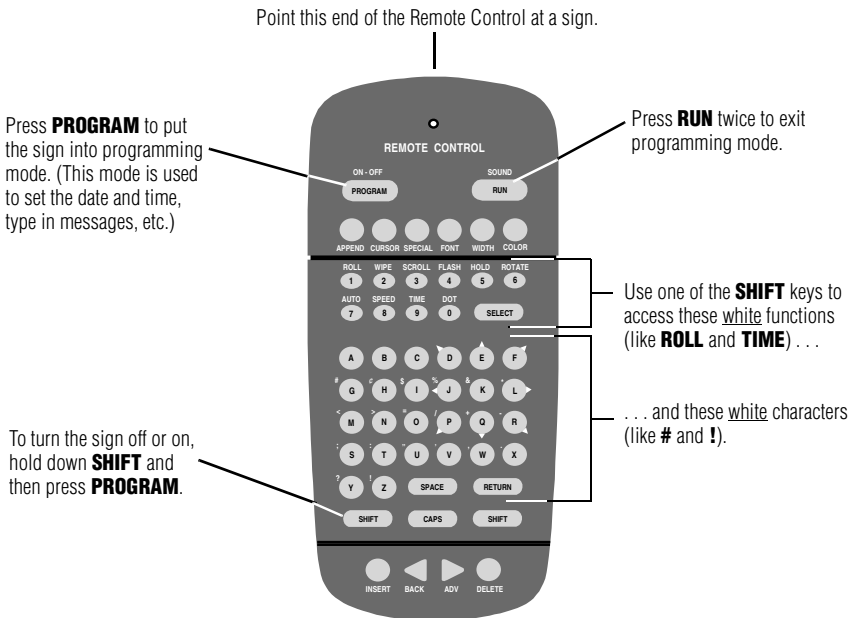
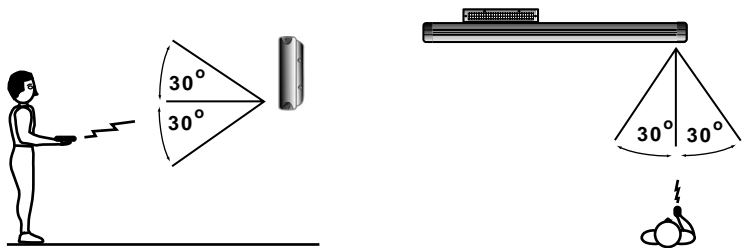


Figure 1: Infrared (IR) Remote Control keyboard

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








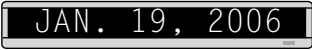



Because the time and date are not updated when the sign is off, the time and date must be re-programmed each time the sign is turned back on. (See "Setting a sign's time and date" on page 4.)

## 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<sup>®</sup> 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 <b>PROGRAM</b> .	
2	Press <b>BACK</b> until SET TIME appears.	
3	Press <b>ADV</b> .	 THEN 
4	Press <b>D</b> to set the day of the week. Press <b>H</b> to set the hour. Press <b>M</b> to set the minute.  NOTE: Press <b>SELECT</b> , to change from 12-hour (AM/PM) to 24-hour mode (0 - 23).	
5	Press <b>BACK</b> until SET DATE appears.	
6	Press <b>ADV</b> .	 THEN 
7	Press <b>D</b> to set the correct day. Press <b>M</b> to set the month. Press <b>Y</b> to set the year.  NOTE: Press <b>SELECT</b> 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 <b>RUN</b> 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 <b>PROGRAM</b> .	
2	Press <b>BACK</b> until CLEAR MEMORY appears.	
3	Press <b>ADV</b> .	 THEN 
4	Press <b>Y</b> 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 <b>PROGRAM</b> .	
2	Press <b>BACK</b> until SET PASSWORD appears.	
3	Press <b>ADV</b> .	
4	Press <b>Y</b> 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.  CORRECT will appear 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  THEN  THEN  THEN 
6	Press <b>RUN</b> twice.	
7	Press <b>Y</b> to password protect the sign.  <b>NOTE:</b> If you select <b>N</b> , then a password will not be needed when you press <b>PROGRAM</b> .	 The sign will return to normal operation.  Now, whenever you press <b>PROGRAM</b> , 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 <b>PROGRAM</b> .	
2	Hold down <b>SHIFT</b> and press <b>L</b> 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

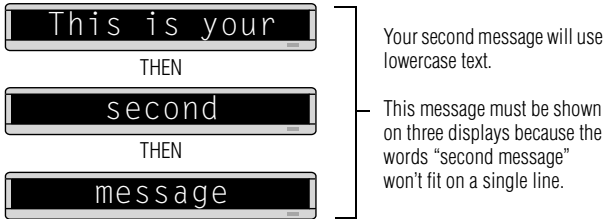
This section shows you how to start creating messages on your sign.

## 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 <b>PROGRAM</b> .	
2	Press <b>ADV</b> .	<p>"A" is the file name of your message</p>
3	Type <i>THIS IS YOUR FIRST MESSAGE</i>  Note: If you make a mistake while typing, press <b>DELETE</b> to erase a letter.	<p>[AUT], which stands for Automode, will appear as you type your first character. Automode automatically displays your message in different formats.</p> <p>Your message should look like this when you're done typing.</p>



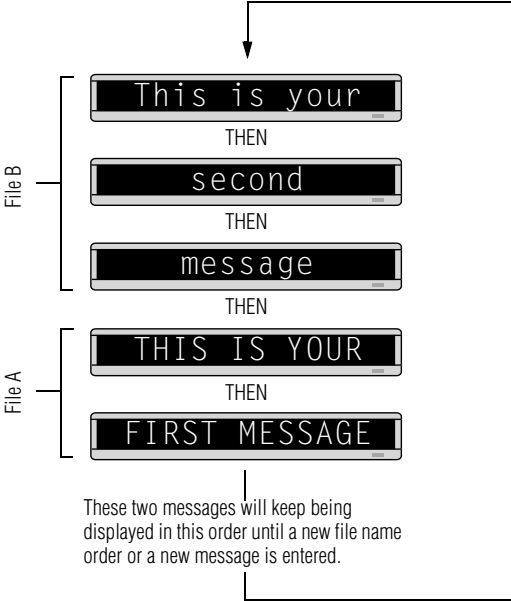
4	Press <b>RUN</b> twice.	 <p>THEN</p>  <p>Because Automode [AUT] was used in your message (see Step 3), the text of your message will be displayed in a variety of formats. For example, one of the formats (or modes) called Scroll moves your message from the bottom to the top of the sign.</p>
Now that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

**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...
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>		
1	Press <b>PROGRAM</b> .	
2	Press <b>RUN</b> .	 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 <b>SELECT</b> until <i>RUN</i> appears.	
4	Press <b>B</b> .	
5	Press <b>RUN</b> .	 THEN  THEN 
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.		
6	Press <b>PROGRAM</b> .	
7	Press <b>RUN</b> .	









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







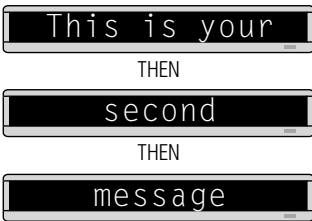
Example 3 — Displaying messages in time order

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. 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 <b>PROGRAM</b> .	
2	Press <b>SELECT</b> until <i>B</i> appears.	
3	Hold down <b>SHIFT</b> and press <b>9</b> for <b>TIME</b> .	<div><p>— <i>ON ALWAYS</i> is the default setting for a message. A message set to <i>ON ALWAYS</i> will run continuously.</p></div> <p>Since file B is already set up, we'll go on to file A.</p>
4	Press <b>PROGRAM</b> .	
5	Press <b>SELECT</b> until <i>A</i> appears.	
6	Hold down <b>SHIFT</b> and press <b>9</b> for <b>TIME</b> .	<div><p>First, we'll select the <i>ON</i> time or when the message <u>starts</u>.</p></div>

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

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

9	Press <b>APPEND</b> to go to the end of the message.  DON'T OMIT THIS STEP.	
10	Press <b>RUN</b> twice.	<div>File B</div> <div>   THEN    THEN   </div>
Next, we'll add text to the end of File A.		
11	Press <b>PROGRAM</b> .	
12	Press <b>SELECT</b> until <i>A</i> appears on the sign.	
13	Press <b>APPEND</b> .	 <b>APPEND</b> takes you to the <u>end</u> of a message.
14	To type a comma, hold down <b>SHIFT</b> and press <b>W</b> .	
15	Press <b>SPACE</b> and then type <i>BUT NOW IT</i> .	
16	To type an apostrophe, hold down <b>SHIFT</b> and press <b>V</b> .	
17	Type <i>S LONGER</i> .	
18	Press <b>RUN</b> twice.	<div>File A</div> <div>   THEN    THEN    THEN   </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:</p> <p>File A = <i>THIS IS YOUR FIRST MESSAGE, BUT NOW IT'S LONGER</i></p> <p>File B = <i>This is the second message</i></p> <p>In this example, we'll delete File B.</p>		
1	Press <b>PROGRAM</b> .	
2	Press <b>SELECT</b> until <i>B</i> appears on the sign.	
3	Press <b>DELETE</b> .	
4	Press <b>Y</b> to delete the file.	
5	Press <b>RUN</b> twice.	<div><div>File A</div><div> THEN  THEN  THEN </div></div>

## 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.


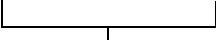




### Example 6 — Displaying the time and date

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;">               THEN                THEN                THEN   </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 <b>PROGRAM</b> .	
3	Press <b>SELECT</b> .	
4	Press <b>A</b> .	
5	Hold down <b>SHIFT</b> and press <b>1</b> for <b>ROLL</b> .	 <p style="text-align: right;">This stands for Roll mode.</p>

7	Press <b>SELECT</b> to change the Roll direction to ↓ (down).	<div><div>A</div><div>[RL↓]</div></div> <p>Press <b>SELECT</b> 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>	<div><div>A</div><div>[RL↓]R</div></div>
9	Using <b>CAPS</b> to switch between uppercase and lowercase letters, type the following:  <i>osco Advertising</i>	<div><div>A]o Advertising</div></div>
We'll Roll the <b>time</b> in from the bottom to the top of the sign.		
10	Hold down <b>SHIFT</b> and press <b>1</b> for <b>ROLL</b> .	<div><div>A</div><div>[RL↑]</div></div>
11	Press <b>WIDTH</b> to display the time in wide characters.	<div><div>A</div><div>[RL↑][WID]</div></div> <p>This will display the time in wide letters.</p>
12	Hold down <b>SHIFT</b> and press <b>9</b> for <b>TIME</b> .	<div><div>A</div><div>3:48 PM</div></div> <p>This inserts the current time (in wide characters).</p>
Next, we'll Roll the <b>date</b> in from the left to the right of the sign.		
13	Hold down <b>SHIFT</b> and press <b>1</b> for <b>ROLL</b> .  Then press <b>SELECT</b> to until the Roll direction changes to ←	<div><div>A</div><div>[RL←]</div></div> <p>We'll make the <u>date</u> will roll to the left.</p>
14	Press <b>WIDTH</b> to turn off wide characters.	<div><div>A</div><div>[RL←][SLM]</div></div> <p>[SLM] means the following characters won't be wide.</p>
15	Press <b>SPECIAL</b> .	<div><div>SPECIAL</div><div>[RL←][SLM]</div></div>



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

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.


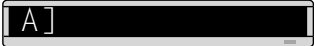
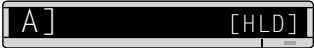









Colors

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 <b>PROGRAM</b> .	
3	Press <b>ADV</b> .	
4	Hold down <b>SHIFT</b> and press <b>5</b> for <b>HOLD</b> .	 Hold mode turns off Automode.
5	Press <b>COLOR</b> until <i>[GRN]</i> (green) appears.	 We'll make the first part of the message appear in green.
6	Press <b>FONT</b> to select <i>[SRF]</i> (the serif font).	
7	Using <b>CAPS</b> and <b>SHIFT</b> when needed, type <i>This is SRF</i>	 As you type, the font you selected will appear as it will actually be displayed on the sign.
8	Press <b>RETURN</b> to start a new line of text.	 This symbol indicates <b>RETURN</b> .
9	Press <b>COLOR</b> until <i>[AMB]</i> appears.	 All the text after <i>[AMB]</i> will be amber colored.
10	Press <b>WIDTH</b> to display wide text.	 [WID] = wide text
11	Using <b>CAPS</b> and <b>SHIFT</b> when needed, type <i>SRF Wide</i>	
12	Press <b>RETURN</b> to start a new line of text.	
13	Press <b>WIDTH</b> again to turn wide characters off.	









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

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

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

### 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 <b>PROGRAM</b> .	
3	Press <b>ADV</b> .	
4	Hold down <b>SHIFT</b> and press <b>4</b> for <b>FLASH</b> .	
5	Type <i>ATTENTION!</i>	
6	Hold down <b>SHIFT</b> and press <b>1</b> for <b>ROLL</b> .	 <p>This is the trailing mode. The <b>ROLL</b> mode “trails” the first mode, <b>FLASH</b>.</p>
7	Type <i>Trailing mode</i>	
8	Press <b>RUN</b> 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:

	<div><div>A]</div><div>A</div></div> <div>Type a Base Character, like A. Then press <b>SELECT</b> to choose an international character.</div>										
Base Characters	(Use the <b>CAPS</b> 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	û	Ý	?	!	£
	ã	C	è	ì	N	ò	Ü	y			¥
	Ä	c	ë	í	n	Ö	ú				f
	Å		Ê	i		ó	U				\$
	æ		E			o	u				
	Æ		e			O					
	á					o					
	ä										
	Å										
	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 <b>PROGRAM</b> .	<div>PROG TEXT A</div>
3	Press <b>ADV</b> .	<div>A]</div>
4	Using <b>CAPS</b> and <b>SHIFT</b> when needed, type <i>Submit your re</i>	<div>A]ubmit your re</div>



5	Press <b>SELECT</b> until <i>é</i> appears.	
6	Type <i>sume</i>	
7	Press <b>SELECT</b> until <i>é</i> appears.	
8	Press <b>RUN</b> twice to see your message satellite.	

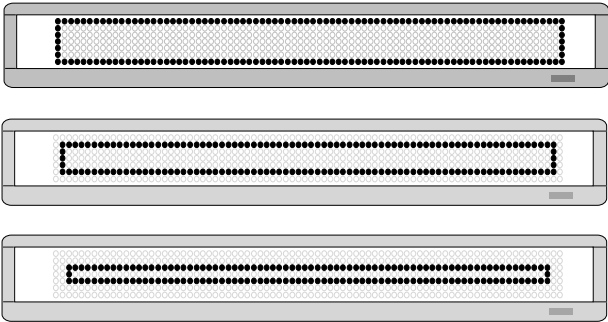
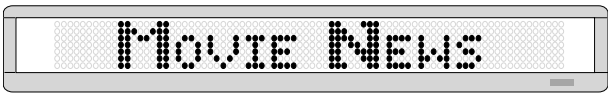


# Graphics

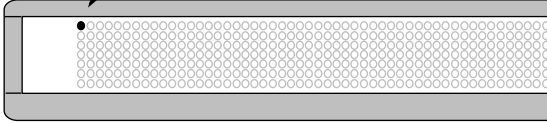
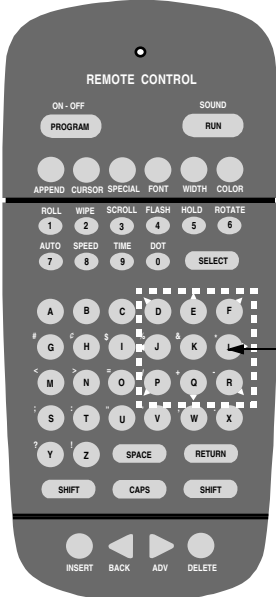
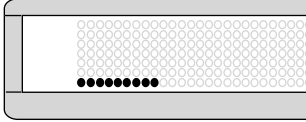
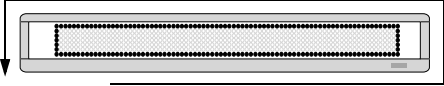
In addition to pre-programmed or “canned” graphics (see “Sign graphics” on page 43), you can create your own custom graphics using DOTS files.





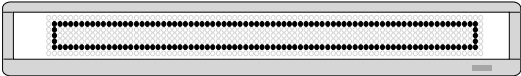
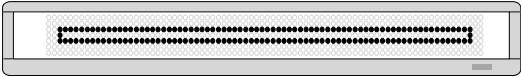







You can display a DOTS graphic that you create either by itself or with text.

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.

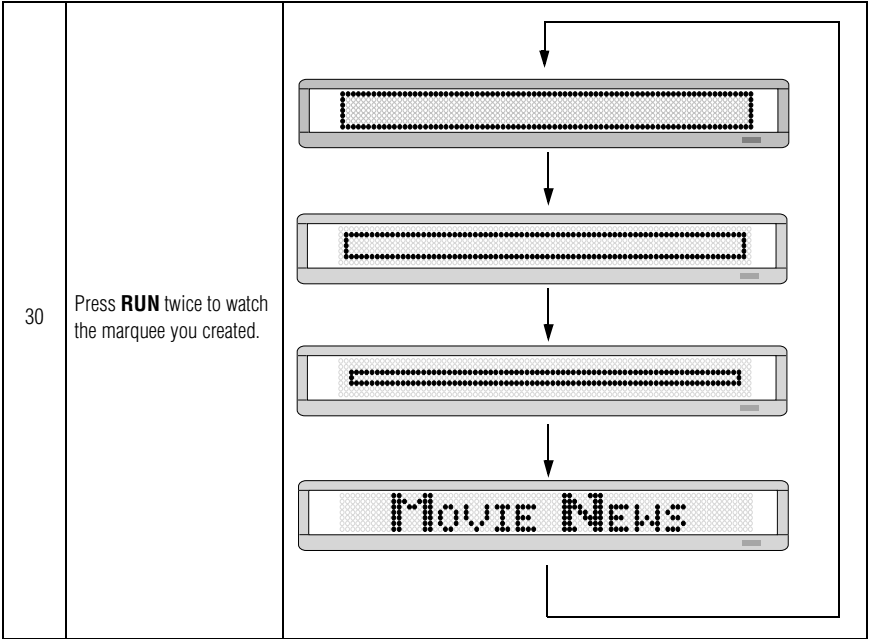
## Example 11 — Creating a movie marquee

Step	When you do this...	You see this...
<div><div>In this example, we'll create three graphics (or DOTS files) and combine them with text to make a flashing marquee:</div><div><div>First you'll create these three graphics files (called DOTS files A, B, C).</div><div></div><div>Then this text will be added after the three graphic files.</div><div></div></div></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 <b>PROGRAM</b> .	
3	Press <b>BACK</b> .	<div><div>The name of your first DOTS graphics is A. (The second one will be named B and the third one C.)</div></div>

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

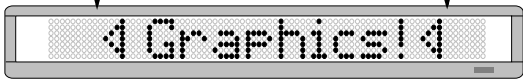


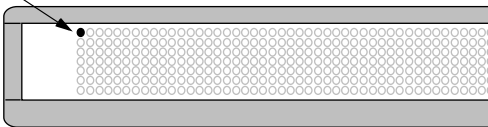
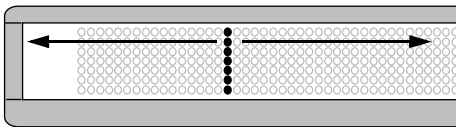
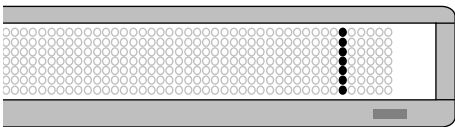
8	Press <b>RUN</b> .	
9	Then press <b>Y</b> to save graphic <i>A</i> .	
10	Press <b>SELECT</b> until a question mark appears.	
11	Type <i>B</i> as the name of the next graphics file.	
12	<p>Repeat the previous steps to draw graphics <i>B</i> and <i>C</i>. (Both are just smaller versions of graphic <i>A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

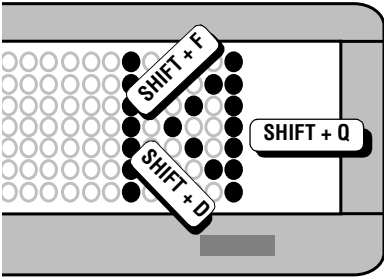







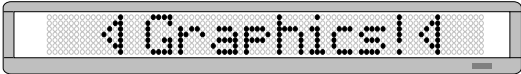

20	<p>Insert the second DOTS graphic by holding down <b>SHIFT</b> and pressing <b>0</b> again.</p> <p>Then press <b>SELECT</b> until the letter <i>B</i> appears.</p>	
21	<p>Insert the third and final DOTS graphic by holding down <b>SHIFT</b> and pressing <b>0</b> again.</p> <p>Then press <b>SELECT</b>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



# **Example 12 — Mixing text with graphics**

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

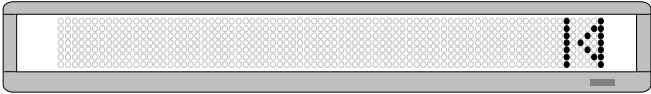



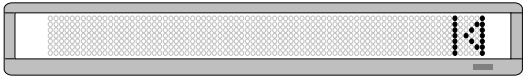
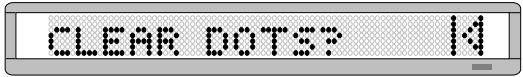
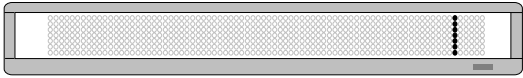
Step	When you do this...	You see this...
	These triangle graphics (two copies of a single DOTS file) will be combined with the text <i>Graphics!</i>	
1	Delete all the messages currently stored in the sign. (See "Clearing a sign's memory" on page 5 or "Example 5 — Deleting messages" on page 16.)	
2	Press <b>PROGRAM</b> .	
3	Press <b>BACK</b> .	 <p>The name of your DOTS graphics file will be A.</p>
4	Press <b>ADV</b> .	
5	<p>Press <b>X</b> to move a vertical line across the sign. This reduces the size of the drawing area.</p> <p>Keep pressing <b>X</b> 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>	<div> <p><b>W</b> moves this line left (increases drawing area)</p> <p><b>X</b> 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>  </div>

6	Draw the following graphic using the keys indicated.	 <p>Remember: To just move the cursor, don't hold down <b>SHIFT</b>.</p>
7	Press <b>RUN</b> twice.	
8	Press <b>BACK</b> until <i>PROG TEXT A</i> appears.	
9	Press <b>ADV</b> .	
10	Hold down <b>SHIFT</b> and press <b>6</b> for <b>ROTATE</b> .	
11	Hold down <b>SHIFT</b> and press <b>0</b> to insert your DOTS graphic.	 <p>The A is the file name of your DOTS graphic.</p>
12	Using <b>CAPS</b> and <b>SHIFT</b> when necessary, type <i>Graphics!</i>  (Place a space before <i>Graphics!</i> )	 <p>Place a space before the word <i>Graphics!</i> (Otherwise, the first triangle will appear too close.)</p>
13	Hold down <b>SHIFT</b> and press <b>0</b> to insert your DOTS graphic again.	
14	Press <b>RUN</b> twice to see your graphic and text message move across the sign.	 <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 <b>PROGRAM</b> .	
2	Press <b>BACK</b> .	
3	Press <b>SELECT</b> .	
4	Type the letter of the graphic you want to delete. (In this case, type A.)	
5	Press <b>Z</b> .	
6	Press <b>Y</b> to delete the graphic. (Or <b>N</b> if you don't want to delete it.)	
7	Press <b>RUN</b> 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**:




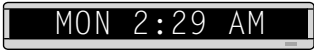

- 7-row sans serif — [SS7]
- 7-row serif — [SRF]
- 5-row sans serif — [SS5]

***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]

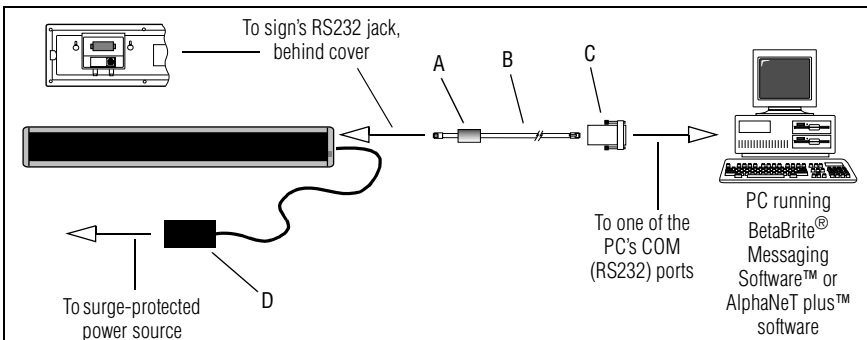
**Appendix B — Sign diagnostic test**

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 <b>PROGRAM</b> .	
2	Press <b>BACK</b> until SET TIME AND DAY or SET TIME appears.	
3	Press <b>ADV</b> .	 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 <b>PROGRAM</b> 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

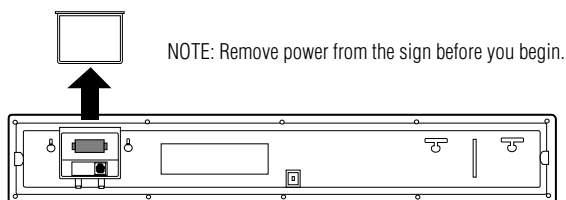
NOTE: BetaBrite® Messaging Software™ is available for online purchase through <http://www.BetaBrite.com>. Click on "Shop @ BetaBriteDirect" to submit an order.

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

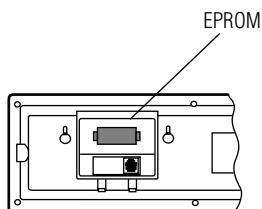
Your sign has an internal chip or EPROM that is used to control the sign. From time to time, the firmware in this EPROM is updated and the EPROM must be changed.

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:

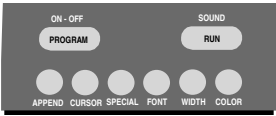



2. Using the top and bottom tabs on the EPROM socket, gently pull the EPROM out of the sign. Then place the new EPROM in the empty socket and replace the access cover:




# Quick Reference Card

## Message control keys

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

## Display modes and special keys

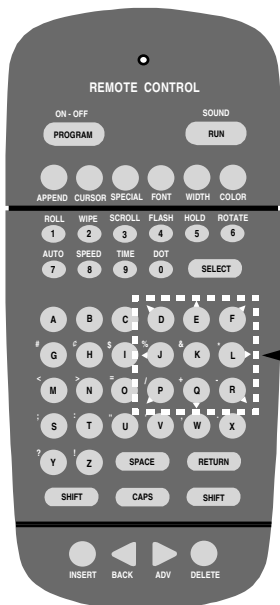
	
<b>ROLL</b>	Hold down <b>SHIFT</b> and press <b>1</b> to use the Roll mode in a message. Use <b>SELECT</b> to change the direction of the roll.
<b>WIPE</b>	Hold down <b>SHIFT</b> and press <b>2</b> to use the Wipe mode in a message. Use <b>SELECT</b> to change the direction of the wipe.
<b>SCROLL</b>	Hold down <b>SHIFT</b> and press <b>3</b> to use the Scroll mode in a message.
<b>FLASH</b>	Hold down <b>SHIFT</b> and press <b>4</b> to use the Flash mode in a message.
<b>HOLD</b>	Hold down <b>SHIFT</b> and press <b>5</b> to use the Hold mode in a message.
<b>ROTATE</b>	Hold down <b>SHIFT</b> and press <b>6</b> to use the Rotate mode in a message.
<b>AUTO</b>	Hold down <b>SHIFT</b> and press <b>7</b> to use the Auto mode in a message.
<b>SPEED</b>	Hold down <b>SHIFT</b> and press <b>8</b> to use the Speed mode in a message. Use <b>SELECT</b> to set the speed (NHL = fastest, SP1 = slowest).
<b>TIME</b>	Hold down <b>SHIFT</b> and press <b>9</b> to include the time in a message.
Date	Press <b>SPECIAL</b> and then <b>M</b> to include the date in a message.
Twinkle	Press <b>SPECIAL</b> . Then press <b>0</b> .
Sparkle	Press <b>SPECIAL</b> . Then press <b>1</b> .
Snow	Press <b>SPECIAL</b> . Then press <b>2</b> .
Interlock	Press <b>SPECIAL</b> . Then press <b>3</b> .
Switch	Press <b>SPECIAL</b> . Then press <b>4</b> .
Slide Across	Press <b>SPECIAL</b> . Then press <b>5</b> .
Spray	Press <b>SPECIAL</b> . Then press <b>6</b> .
Starburst	Press <b>SPECIAL</b> . Then press <b>7</b> .
Carriage return	Press <b>RETURN</b> .
Half space	Hold down <b>SHIFT</b> and then press <b>SPACE</b> .



## Sign graphics

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

## 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.

