

PRIORITY:	Normal
DATE:	December 3, 2001
TITLE:	Upgrading firmware on AlphaEclipse™ 3500 series signs
ECO REFERENCE:	N/A
PRODUCT(S) AFFECTED:	AlphaEclipse™ 3500 series signs
SUMMARY:	These instructions show how to upgrade the Main and Peripheral firmware on an AlphaEclipse™ 3500 series sign.

Overview

From time to time it may be necessary to change the operating system in an AlphaEclipse™ 3500 series sign. This is done by upgrading the sign's firmware.

Two types of firmware are used in an AlphaEclipse™ 3500 series sign: Main firmware and Peripheral firmware.

A firmware upgrade requires three basic steps:

- Find out the current firmware in the sign(s)
- Determine how your computer is connected to the sign(s)
- Upgrade the firmware

Controlling electrostatic discharge damage

Alpha® signs contain components that may be damaged by "static electricity", or electrostatic discharge. To prevent this from happening, be sure to follow the guidelines in Adaptive Tech Memo 00-0005, "Guidelines for Controlling Electrostatic Discharge Damage", available at our web site at <http://www.adaptivedisplays.com>.

Required materials

Item	Part number	Function
Alpha® Flash Updater software	—	Available at Adaptive's FTP site: ftp.ams-i.com
Firmware upgrade files	—	
AlphaNET™ version 2.0 software	1092-9113	(Optional) Used to determine a sign's sign address. Available from Adaptive.

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The distinctive trade dress of this product is a trademark claimed by Adaptive Micro Systems, Inc.

Due to continuing product innovation, specifications in this manual are subject to change without notice.

Find the current firmware version of the sign(s)

1. Turn the sign off and then on again.
2. As the sign starts up, the current firmware version in your sign will appear. The version will look like *1160-5001d* or *1162-5001c*.

Write down the current firmware version: _____

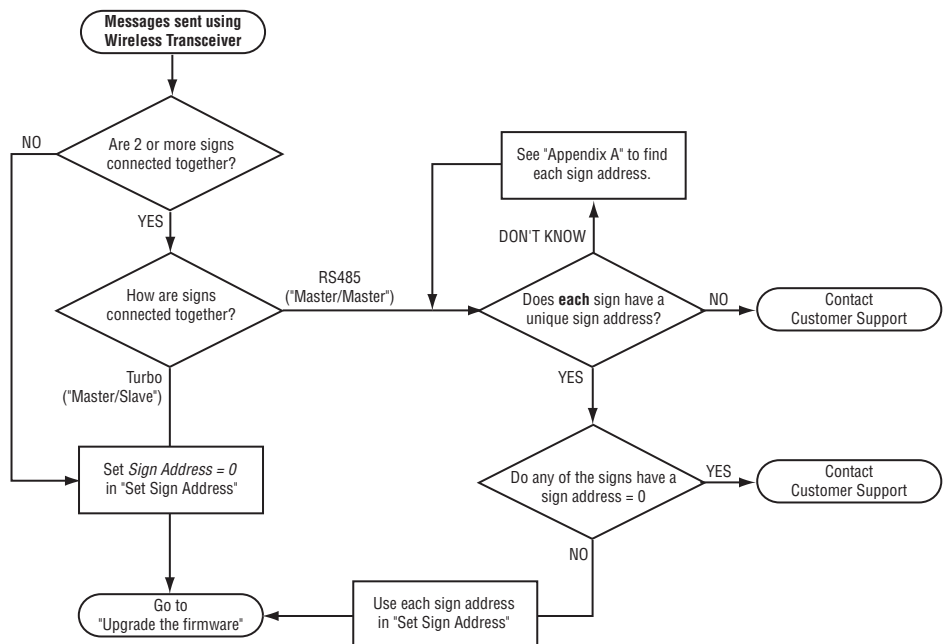
NOTE: If the current firmware version of the sign is **1160-5001d**, contact Customer Support BEFORE going any further.

Determine how your computer is connected to the sign(s)

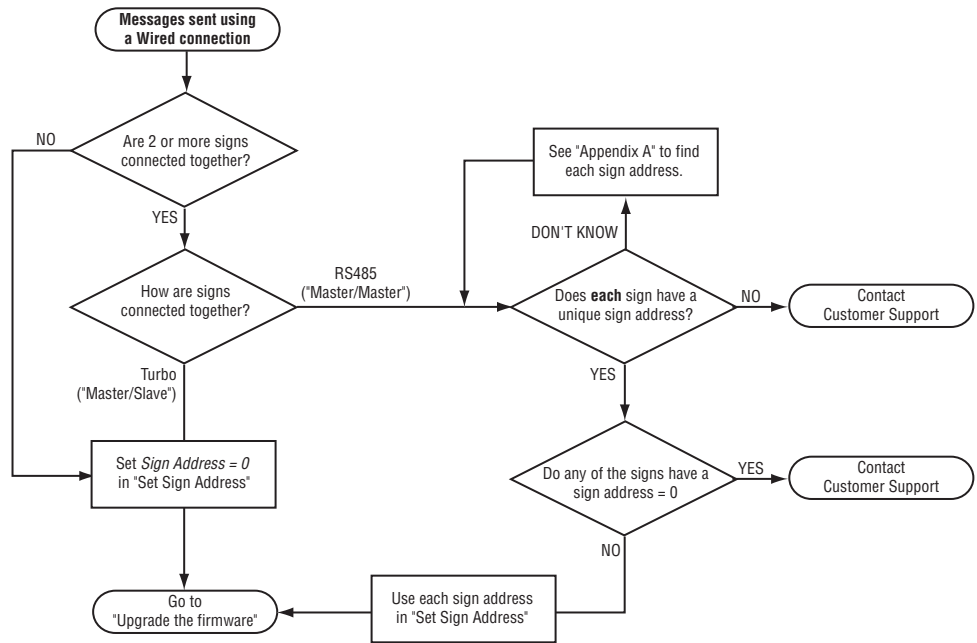
To upgrade the firmware in an AlphaEclipse™ 3500 series sign, a computer running Alpha® Flash Updater software will have to be connected to the sign in some way.

NOTE: If you do NOT have a computer *permanently* attached to your sign(s), you still should be able to connect a computer to the sign. See “Appendix B — External firmware upgrade” on page 8.

3. How are messages sent from the computer running AlphaNET™ software to the sign(s)?
 - If messages are sent via a *MODEM*, contact Customer Support.
 - If messages are sent via a *WIRELESS TRANSCEIVER*, follow the flowchart below:



- If messages are sent via a *WIRED* connection, follow the flowchart below:



Upgrade the firmware

Download the latest firmware

1. Get a copy of the latest version of the Alpha[®] Flash Updater software from Adaptive's FTP site (ftp.ams-i.com):

Microsoft's Internet Explorer web browser can be used to download files from an FTP site.

Open the *product_updates* folder

Name	Size	Type	Modified
activex		File Folder	5/10/01 3:36 PM
alpha_protocol_examples		File Folder	8/30/01 2:14 PM
downloads		File Folder	10/25/01 7:03 PM
forumdata		File Folder	12/16/99 12:00 AM
media		File Folder	6/28/00 12:00 AM
product_updates		File Folder	10/25/01 1:05 PM
technical_documentation		File Folder	12/7/99 12:00 AM
utilities		File Folder	2/6/01 12:00 AM
betajmpr.jpg	17.1 KB	JPEG Image	12/6/99 12:00 AM
terms.doc	4.02 KB	Microsoft Word Doc...	9/24/99 12:00 AM
welcome.msg	599 bytes	Outlook Item	9/24/99 12:00 AM
welcome.msg~	555 bytes	MSG~ File	9/24/99 12:00 AM

Name	Size	Type	Modified
AlphaEclipse		File Folder	10/29/01 9:56 PM
AlphaPremiere		File Folder	10/25/01 1:05 PM
Alpha Flash Updater.exe	2.36 MB	Application	10/10/01 9:30 PM

Download the Alpha[®] Flash Updater software

2. Download the appropriate FLASH update files from the *AlphaEclipse* folder on the Adaptive FTP site:

Download these files in this folder and place them in one folder on your computer.

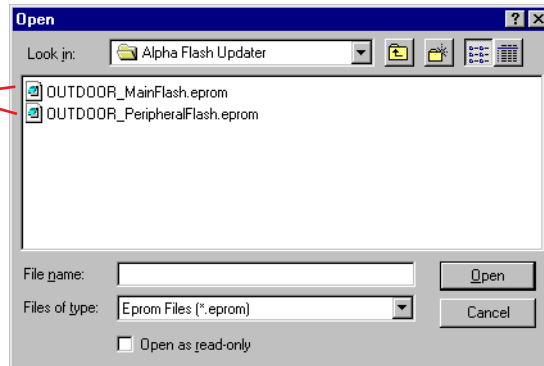
Some of these files will end in *.eprom* and others in *.hex*.

Name	Size	Type	Modified
AlphaEclipse		File Folder	10/29/01 9:56 PM
AlphaPremiere		File Folder	10/25/01 1:05 PM
Alpha Flash Updater.exe	2.36 MB	Application	10/10/01 9:30 PM

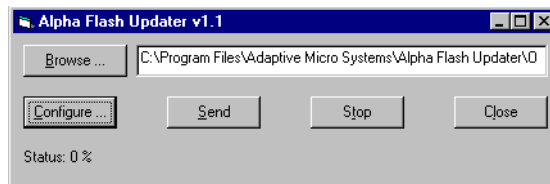
Run Alpha[®] Flash Updater software

3. On the computer connected to the sign, run the Alpha[®] Flash Updater software. Use *Browse* to locate the two updater (.eprom) files you just downloaded:

The filenames you see may not be exactly the same as these.



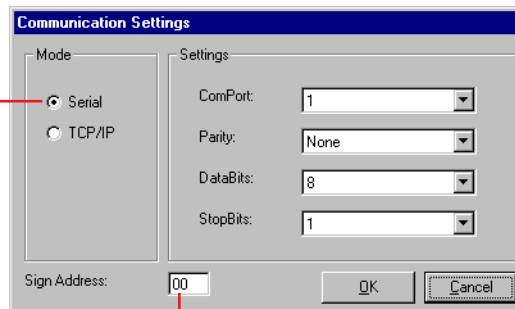
4. Select the *MainFlash.eprom* first:



Set Sign Address

5. Select *Configure* and make sure the settings are correct. Then select *OK*:

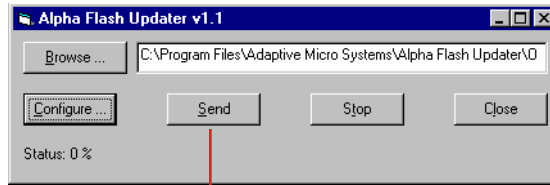
Select *Serial* for RS232 or RS485 connections.



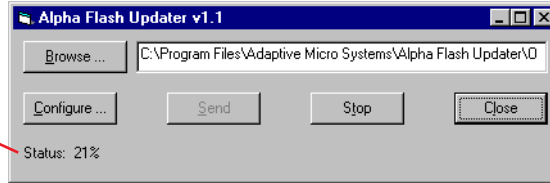
If you are upgrading just *ONE* sign, then set sign address = 0.

If you are upgrading *MULTIPLE* signs, you will have to upgrade one sign at a time using the sign's unique sign address for each upgrade. (See "Determine how your computer is connected to the sign(s)" on page 2.)

6. Click on *Send* to start uploading the *MainFlash.eprom* to the sign:

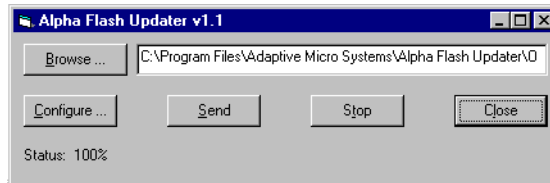


The *Status* indicator will count up to 100% twice, then the sign will restart.

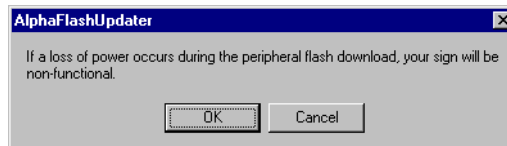


NOTE: After uploading the *MainFlash.eprom*, if the sign fails to restart after 5 minutes, you can try to upload the *MainFlash.eprom* file again.

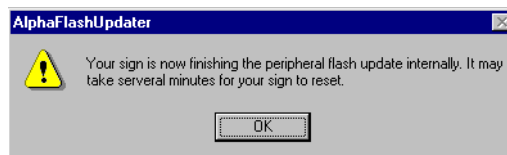
7. After the sign restarts, click on *Browse* and select the *PeripheralFlash.eprom* file to upload. Then click on *Send* to start the upload of this second file:



8. When this message appears, click on *OK*:



9. After the *PeripheralFlash.eprom* upload, this message will appear:



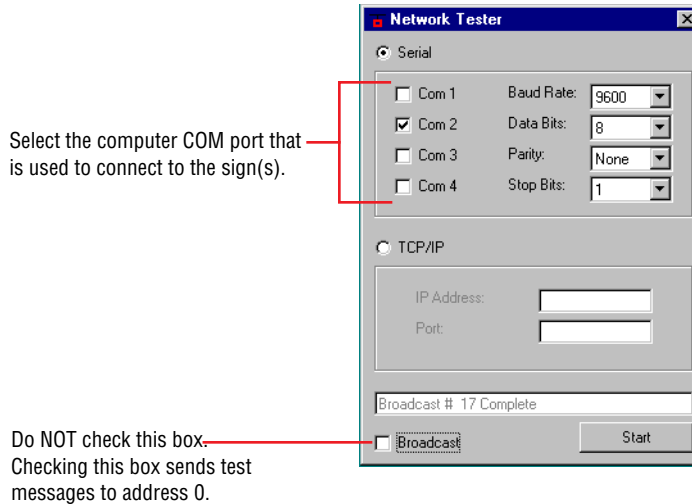
NOTE: IF THE SIGN FAILS TO RESTART AFTER 5 MINUTES, CONTACT CUSTOMER SUPPORT.

Appendix

Appendix A — How to determine a sign's sign address

This procedure requires that AlphaNET version 2 is installed on the computer that is connected to your sign(s).

1. Select *Programs > AlphaNET > Network Tester*. Select the appropriate COM port and click on *Start*:



This means that ALL signs will display the test messages regardless of what sign address each sign has.

2. A message similar to the following will appear on each sign:

Sign Addr: 04 Msg: 2

This address is a hexadecimal number.

In this case, the sign's address = 4.

NOTE: If a sign has a sign address = 0, then no message will appear.

3. Write down the sign address used in each sign. You will need these addresses when you upgrade a sign's firmware using the Alpha[®] Flash Updater.

Appendix B — External firmware upgrade

To use this method, there must be an external connection to the sign. For example, at the base of a sign there may be a box that has a Modular Network Adapter wired to the sign. You will need to know if this connection is wired for RS232 or RS485.

Are two or more signs connected together?

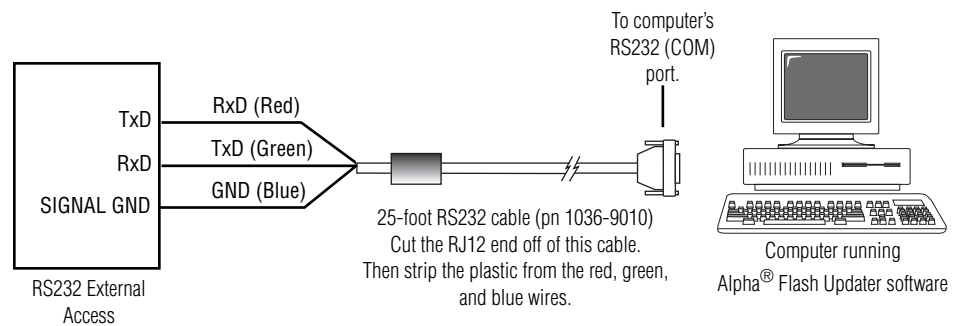
If two or more signs are connected together and there is one external connection for all the signs, you will need to know if the signs are wired using a Master/Slave (also called “Turbo”) or a Master/Master (also called “RS485”) connection.

- If a Master/Slave connection is used, go to “Connect a computer to a sign” below.
- If a Master/Master connection is used, then each sign must have a *unique* sign address. To determine a sign’s sign address, see “Appendix A — How to determine a sign’s sign address” on page 7.
 - If each sign does NOT have a unique sign address, then contact Customer Support.
 - If any of the signs has a sign address = 0, then contact Customer Support.

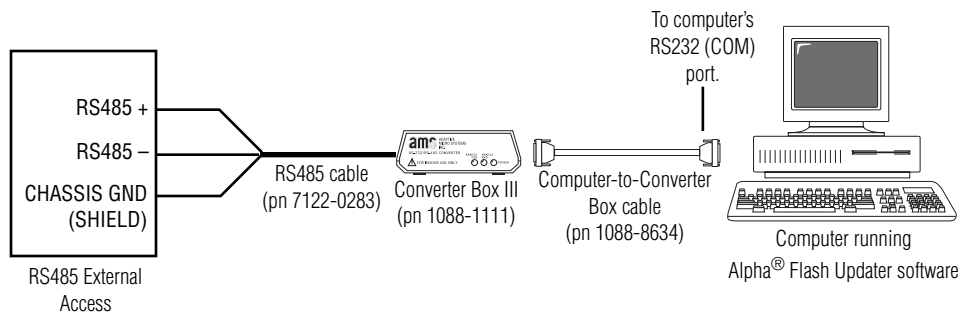
Connect a computer to a sign

1. Turn the sign off.
2. Connect the computer to the sign in one of the following ways:

External RS232 upgrade



External RS485 upgrade



3. Turn the sign on.
4. Upgrade the sign’s firmware. See “Upgrade the firmware” on page 4.