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TechMemo #04-0003

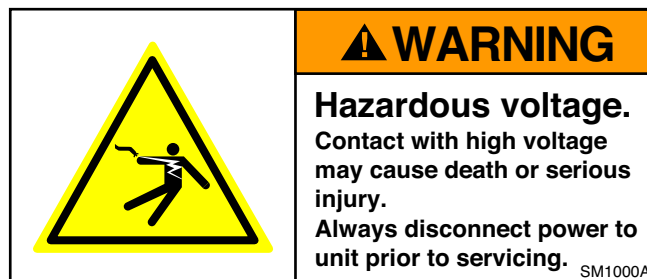|	
PRIORITY:	Normal
DATE:	March 17, 2004
TITLE:	Using an Alpha Ethernet Adapter II with an AlphaEclipse™ sign
ECO REFERENCE:	n/a
PRODUCT(S) AFFECTED:	AlphaEclipse 2500, 2600, and 3500 signs
SUMMARY:	This document explains how to use an Ethernet connection to network an AlphaEclipse 2500, 2600, or 3500 sign mounted on the outside of a building to a computer that is inside the same building. An Alpha Ethernet Adapter is used to connect the sign to the computer.

Overview

An AlphaEclipse 2500, 2600, or 3500 sign that is mounted on the side of a building can be connected to an Ethernet network. However, because the native communication of AlphaEclipse signs is serial (RS232/485), a serial-to-Ethernet interface is necessary. The Alpha Ethernet Adapter II (AEAII) serves as this interface.

The AEAII has two connectors:

- RJ11 serial (RS232/485) — connects to a 6-position modular network adapter which is wired to the controller board of an AlphaEclipse sign.

  NOTE: The cable (pn 7122-0400) that connects the 6-position modular network adapter to a sign's controller board should be *as short as possible and no longer than 10 feet*. A cable longer than this may prevent the AEAII from operating properly.

- RJ45 — connects to a 10/100BASE-T Ethernet network.

⚠ WARNING

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

Connection diagram

Controller board
(inside AlphaEclipse sign)

4-conductor cable (pn 7122-0400)
Do not run this cable with the
sign's power wires.
This cable should not be
longer than 10 feet.

Red
Black
White
Green

**6-Position
Modular Network Adapter
(pn 4331-0604)**

White

Black

Green

Red

Connect to
Alpha Ethernet Adapter II

Ethernet
connection

RJ11

**Alpha Ethernet Adapter II
(pn 1088-1114)**

MAC address label

RJ45

PC with AlphaNET
software connected
to Ethernet

Alpha Ethernet Adapter setup

Connect the AlphaEclipse sign and the Alpha Ethernet Adapter

1. Connect the AlphaEclipse sign as shown in "Connection diagram" on page 2.

2. Turn on the AlphaEclipse sign.

3. Make sure that the Alpha Ethernet Adapter has power — a green LED should flash on the *NETWORK* side of the adapter.
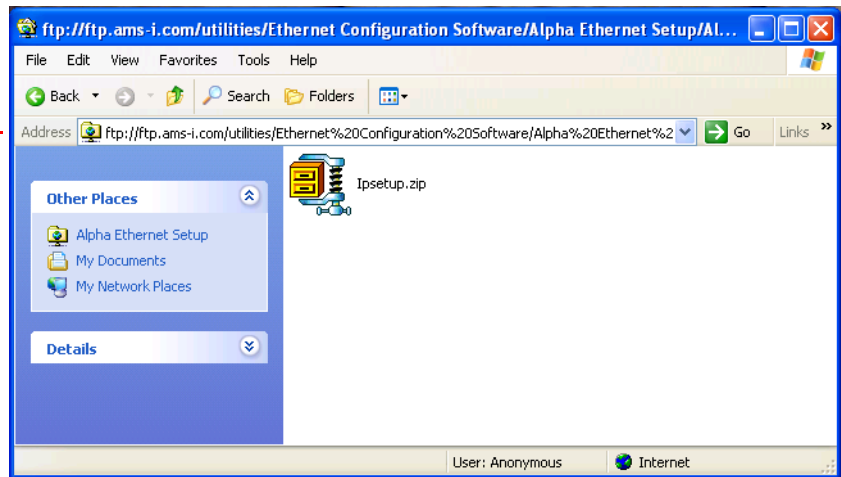
Assign an IP address

4. Using a Web browser or an ftp program, download the IP setup program from Adaptive's Internet ftp site:

After *Address*, type "ftp.ams-i.com" and press ENTER.

Locate the *Ipsetup.zip* file by clicking through these folders:
*   *utilities*
*   *Ethernet Configuration Software*
*   *Alpha Ethernet Setup*
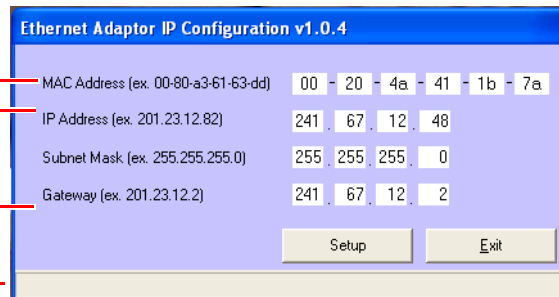*   *Alpha Ethernet Setup update v1.0.4* (or a later version)

5. Double-click *IPsetip.exe*. Then type in the following information and click *Setup*:

MAC Address — this is on a label on the Alpha Ethernet Adapter.

IP Address, Subnet Mask, Gateway — get these from your network administrator.

Status messages appear here.

One of several status messages will appear: (This may take a minute or two.)

*   *Setup IP address is successful, reboot adaptor to take effect* — Shortly after this message appears, a *Test IP Address* window will appear. Unplug the Alpha Ethernet Adapter from the sign to remove power from the adapter. Wait a few seconds and then plug the sign connector back in. Click *No* because you will test the sign in another way in the next step.

*   *IP address already exists* — This means the Alpha Ethernet Adapter already has the IP address you entered programmed. Go to the next step.

*   *Setup IP Address Failed* — An IP address was not assigned to the Alpha Ethernet Adapter. Make sure that all the information you entered, such as *MAC Address* and so on, is accurate. Also, shut down your computer and unplug the adapter from the sign. Wait a full minute, then restart your computer and plug the adapter back into the sign.

Test the Alpha Ethernet Adapter

At this point, the AlphaEclipse sign should be on and connected to the Alpha Ethernet Adapter. The adapter should have an IP address assigned to it.

Test 1: Ping test

Start the AlphaNET Diagnostics software. Click TCP/IP and enter the information as shown below:

IP Address — type the IP address that you just assigned to the Alpha Ethernet Adapter.
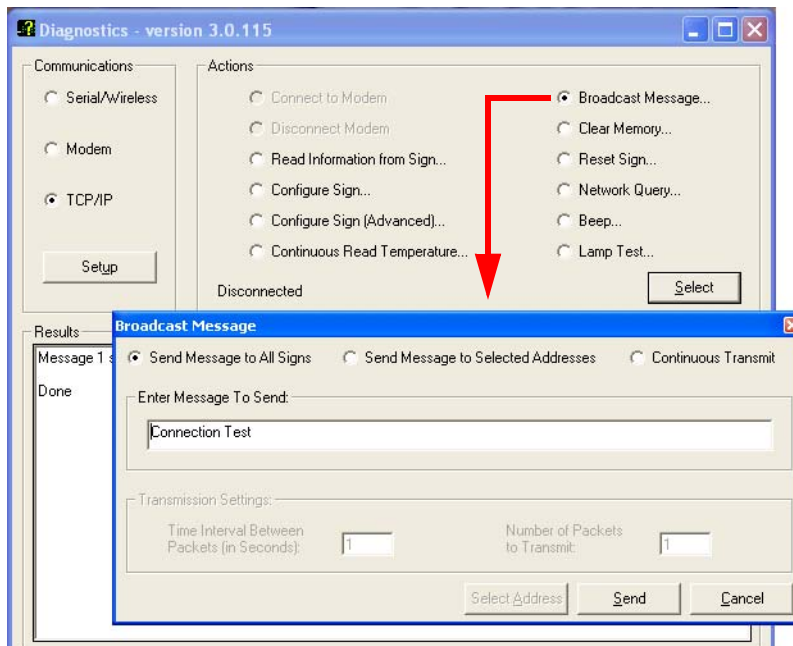
Port — type "3001".

Click *Ping IP Address*.
- If the *Reply from ...* message appears, then this test was a success. Go to Test 2.
- If the *Request Times Out* message appears, then this test failed. Contact your network administrator.
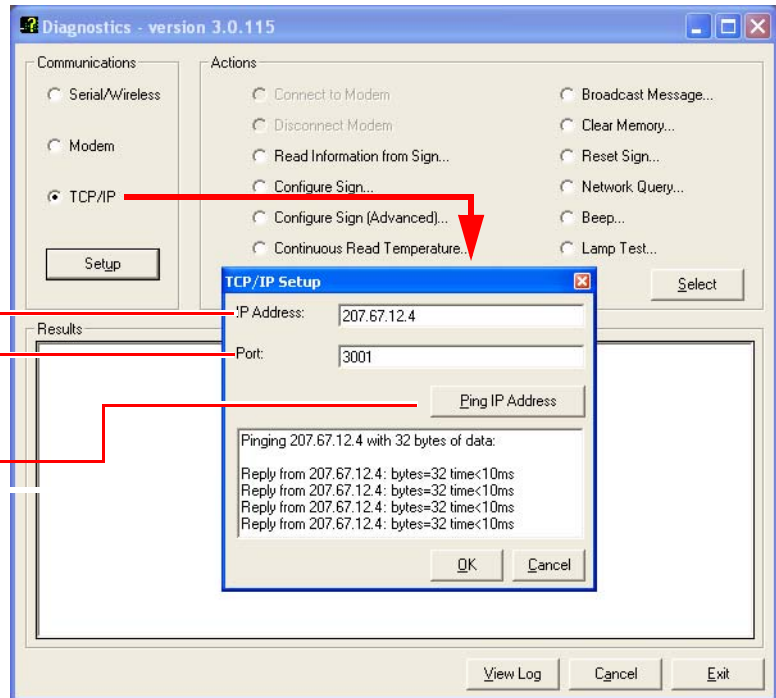
Test 2: Message test

In the Diagnostics window, click *Broadcast Message > Select*. In the Broadcast Message window, click *Send Message to All Signs > Send*:

After this test, the message *Connection Test* should appear on your sign.

If this message does not appear, contact Adaptive Technical Support.