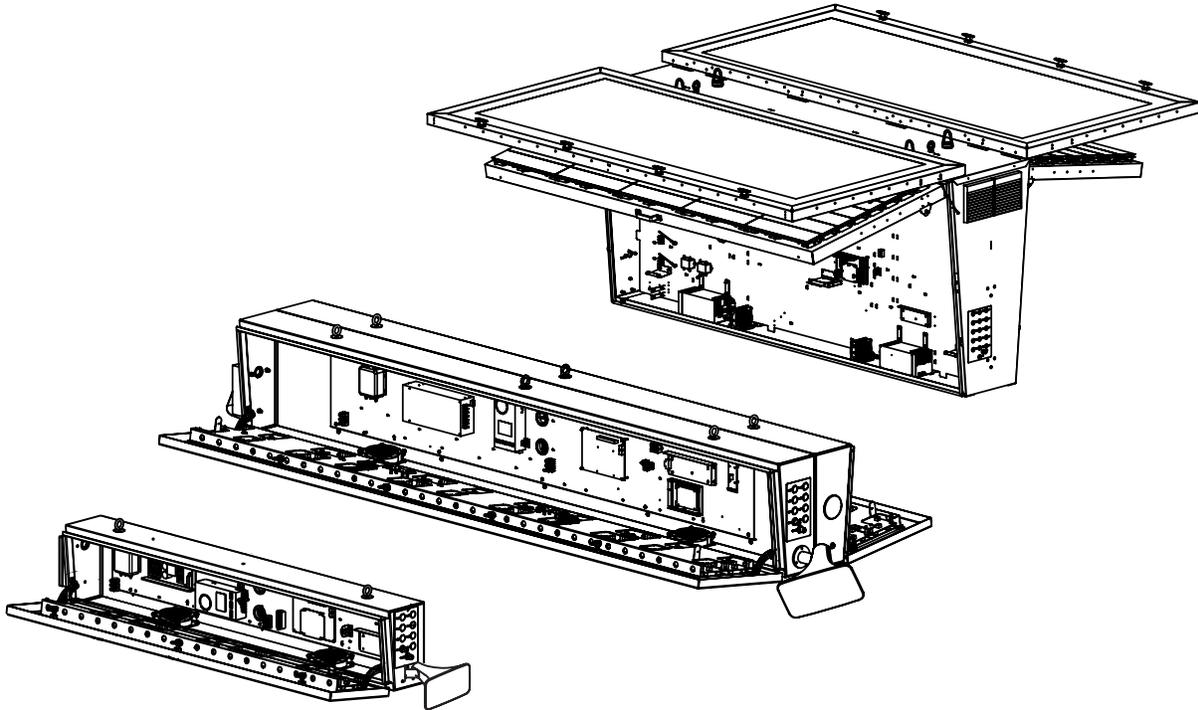


AlphaVision™ PC Series III



Sign model	Sign display size (pixels)
AVPC320128T3	320 x 128
AVPC320112T3	320 x 112
AVPC320096T3	320 x 96
AVPC320080T3	320 x 80
AVPC320064T3	320 x 64
AVPC320032T3	320 x 32
AVPC192016T3	192 x 16

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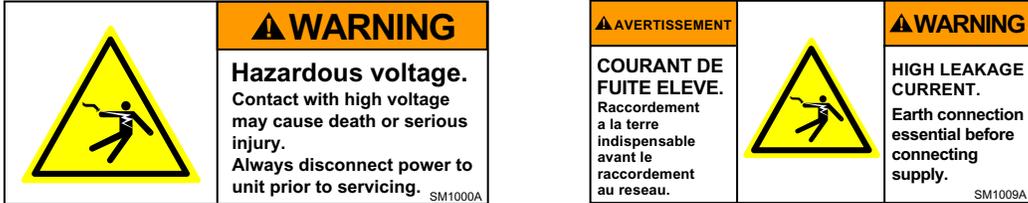
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Safety information

Warnings and cautions

Be aware of the following warnings when installing or servicing signs.



Controlling electrostatic discharge (ESD)



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

Introduction

Purpose

This manual is intended as a guide for installation and setup of the sign, as well as for routine maintenance.

Revision history

Part number	Date	Notes
1234600401	July 26, 2006	First release.

Related documentation

Sign size	Part number	Title	Description
320 x 128 and 320 x 112	1234601101	AlphaVision PC Series III 320x128 and 320x112 Sign Electrical Installation Guide	Describes the electro-mechanical installation of 320x128 and 320x112 signs.
	1234601501	AlphaVision PC Series III 320x128 and 320x112 Sign Mechanical Installation Guide	
320 x 96 and 320 x 80	1234600301	AlphaVision PC Series III 320x96 and 320x80 Sign Electrical Installation Guide	Describes the electro-mechanical installation of 320x96 and 320x80 signs.
	1234601601	AlphaVision PC Series III 320x96 and 320x80 Sign Mechanical Installation Guide	
320 x 64	1234601401	AlphaVision PC Series III 320x64 Sign Electrical Installation Guide	Describes the electro-mechanical installation of the 320x64 sign.
	1234601901	AlphaVision PC Series III 320x64 Sign Mechanical Installation Guide	
320 x 32	1234601201	AlphaVision PC Series III 320x32 Sign Electrical Installation Guide	Describes the electro-mechanical installation of the 320x32 sign.
	1234601701	AlphaVision PC Series III 320x32 Sign Mechanical Installation Guide	
192 x 16	1234601301	AlphaVision PC Series III 192x16 Sign Electrical Installation Guide	Describes the electro-mechanical installation of the 192x16 sign.
	1234601801	AlphaVision PC Series III 192x16 Sign Mechanical Installation Guide	
All types	TechMemo 00-0005	Preventing Electrostatic Discharge (ESD) Damage	Provides grounding procedures, lists work area guidelines, and explains ESD.
	1132600801	Service Bulletin 06-0004 Alphavision PC support latch upgrade kit instructions	These instructions are for the AlphaVision PC Support Latch Upgrade Kit (pn 1132201101). The support latch and handle provide extra support for the LED display panels to help prevent them from closing and to make them safer to open and close during servicing. These instructions explain how to install the support latch and handle and where to place the labels.
	1132600601	TechMemo 05-009 AlphaVision PC manual support latch upgrade kit instructions	These instructions are for the AlphaVision PC Manual Support Latch Upgrade Kit (pn 1132600501). The support latch provides additional support for the LED display panels while they are open. These instructions explain how to install the support latch.

Sign identification

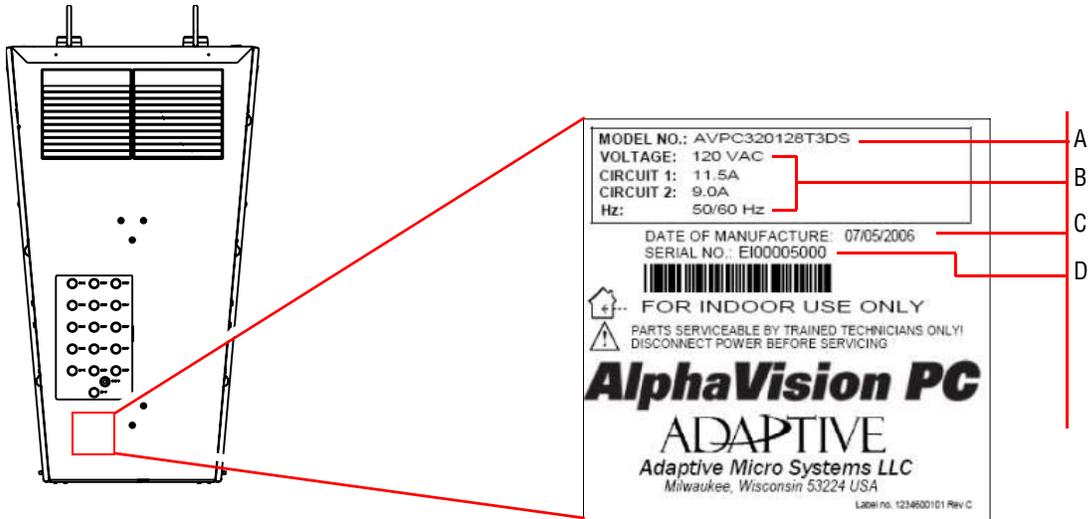
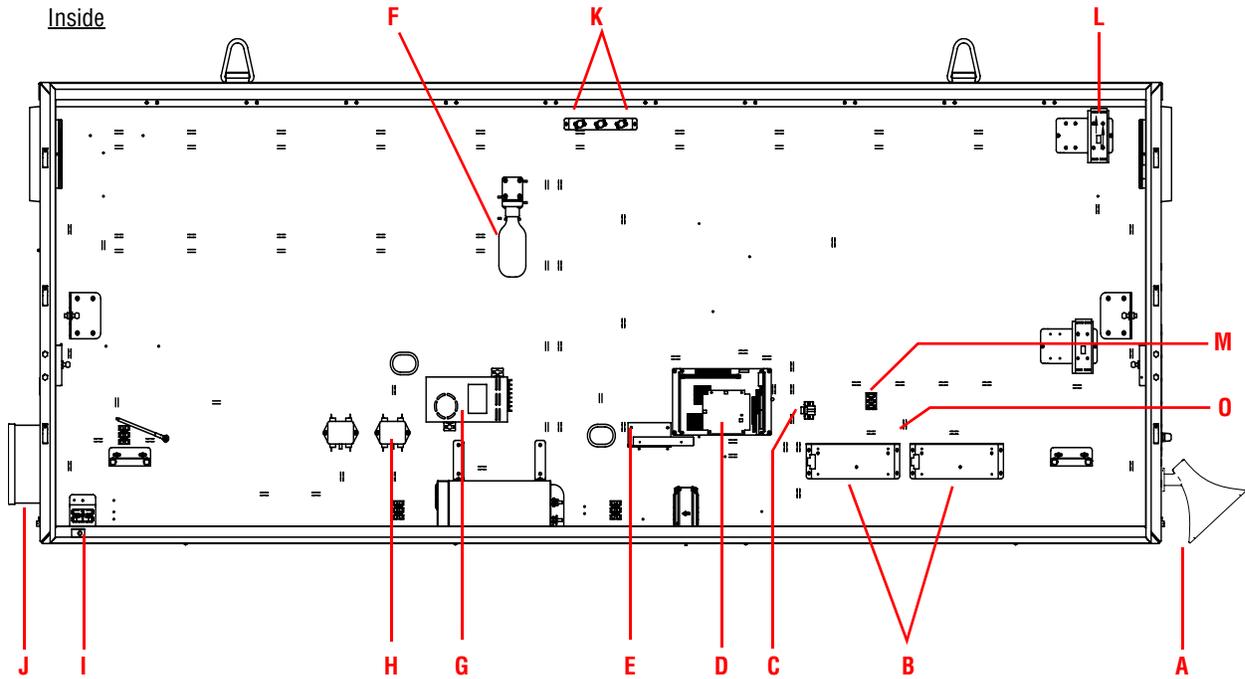


Table 1: Sign identification

Item	Name	Model number description
A	Model number	<p><u>AVPC320096T3-DS-W2K-A4</u></p> <ul style="list-style-type: none"> AVPC = Sign model: AVPC = AlphaVision PC 320 = Sign display width and height (in pixels). First three digits are width, last three are height. T3 = Series III sign DS = Sign type: DS = double-sided SS = single-sided W2K = Sign operating system: W2K = Windows 2000 WCE = Windows CE A4 = Music channels: A1 = 1 music channel (up to 2 speakers), A4 = 4 music channels (up to 8 speakers), A8 = 8 music channels (up to 16 speakers)
B	Electrical information	Input voltage, frequency, and amperage.
C	Date of manufacture	Month, day, and year the sign was made.
E	Serial number	Consecutive, unique identification number.

Major sign components

Shown below is a 320 x 96 Master sign. Other sign sizes are similar.



LED door underside

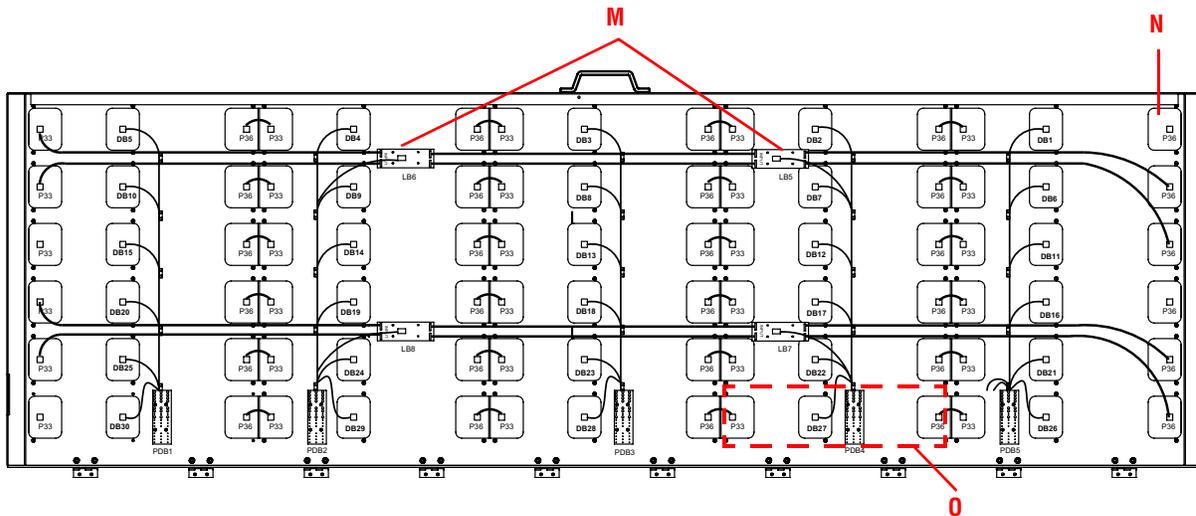
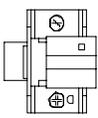
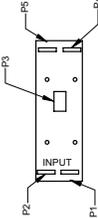
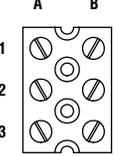


Table 2: Major sign components

Item	Name	Description
A	Speaker (option)	Plays sounds from TuneBlaster sound board.
B	TuneBlaster sound board	Used to play sounds through up to 4 speakers per board. The TuneBlaster sound board is an option.

Table 2: Major sign components (Continued)

Item	Name	Image	Description
C	Modular network adapter		Connects Ethernet adapter on the sign controller board to an external Ethernet network. A 110 punch-down tool is required to wire an external Ethernet connection to this adapter.
D	Controller board with turbo adapter board (on top)		The turbo adapter board is an interface between the controller board and the LED driver boards. The turbo adapter board is an Advantech PCM-9579 embedded PC board with Celeron 650MHz processor.
E	Hard disk drive (not installed on Windows CE units)		Used to store operating system and programs.
F	Light		Philips 371237 18W compact fluorescent bulb. Powered through fuses (item I).
G	Power supply		Supplies either 5V (Meanwell PSP-1000) or 12V (Meanwell SP-200-12) power to sign components.
H	EMI filter		Removes electromagnetic interference from incoming and outgoing AC power.
I	Fuses		Two, 1/4 x 1 1/4-inch, fast acting, 10A, 250V fuses.
J	Breaker box		AC power switchbox.
K	Thermostats		Control the following sign functions: <ul style="list-style-type: none"> • TS1 — At 120F, turns fans on. • TS2 — At 130F, dims the sign's LEDs. • TS3 — At 160F, turns sign off.
L	Loopback board		Boosts signal strength.
M	TB5 DC terminal block		5V and 12V wiring terminal.
N	LED driver board		
O	Power distribution board		Supplies 5V to LED driver boards.

Addressing your sign

Setting an IP address on a Windows 2000 sign (320x128, 320x112, 320x96, 320x80, 320x64, and 320x32 with Windows 2000 option)

NOTE: Another way to set a sign's IP address is described in "Attaching a monitor, keyboard, and mouse directly to a Windows 2000 sign (320x128, 320x112, 320x96, 320x80, 320x64, and 320x32 with Windows 2000 option)" on page 17.

VNC Viewer is a software application that allows you to see and control the desktop of another computer that is running VNC Server software. Windows 2000 AlphaVision PC signs are shipped with VNC Server installed. Once you have VNC Viewer installed on your computer, you can control the Windows 2000 computer inside an AlphaVision PC sign. This will allow you to set the sign's IP address, run programs from the sign, and so on.

AlphaVision PC signs are shipped with DHCP enabled. This means that a sign will *automatically* get an IP address once the sign is connected to a TCP/IP network. Later, this DHCP IP address can be changed to a *static* IP address.

NOTE: Before you begin, obtain a static IP address for the sign from your network administrator.

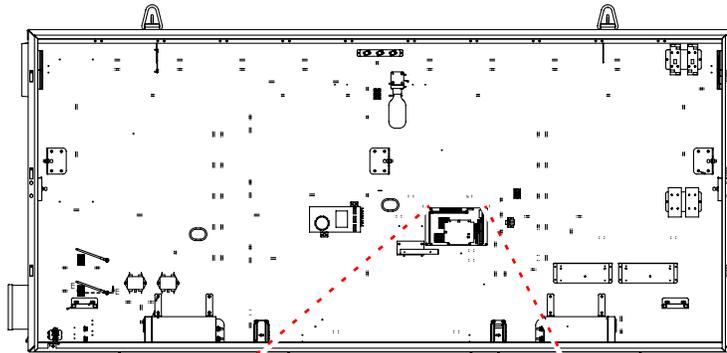
Step 1: Install VNC Viewer software on your computer

Download the software from <http://www.realvnc.com> and follow their installation instructions.

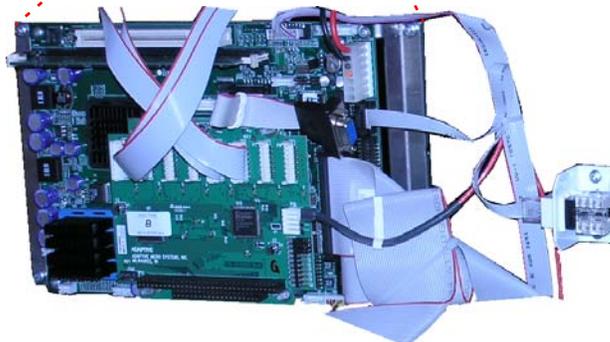
NOTE: In order to use the VNC Viewer to control a sign, the sign must have an IP address — *and you must know what it is.*

Step 2: Get a temporary IP address for the sign

1. Turn off the sign.
2. Connect the sign to a TCP/IP network.

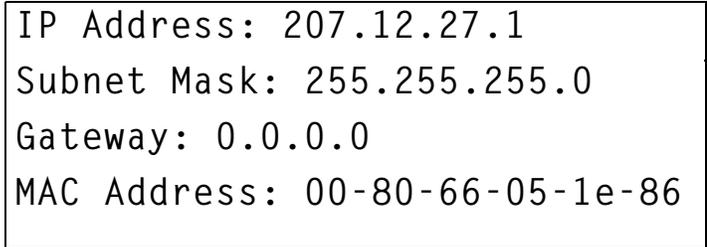


Your computer must be connected to this same TCP/IP network.



TCP/IP connection:
Use this punchdown block to wire a permanent TCP/IP connection to the sign.

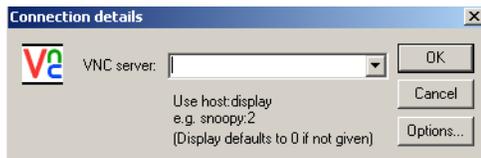
3. Apply power to the sign. Write down the IP address that appears on the sign.



Example IP address message that appears when first starting the sign (shown for a 320x96 sign).

Step 3: Assign a static IP address to the sign using VNC Viewer

1. Select *Start > Programs > RealVNC > VNC Viewer*. After *VNC Server*, type the IP address that was displayed on the sign. Then click *OK*:



2. After *Session password*, type "dbadmin". Then click *OK*.

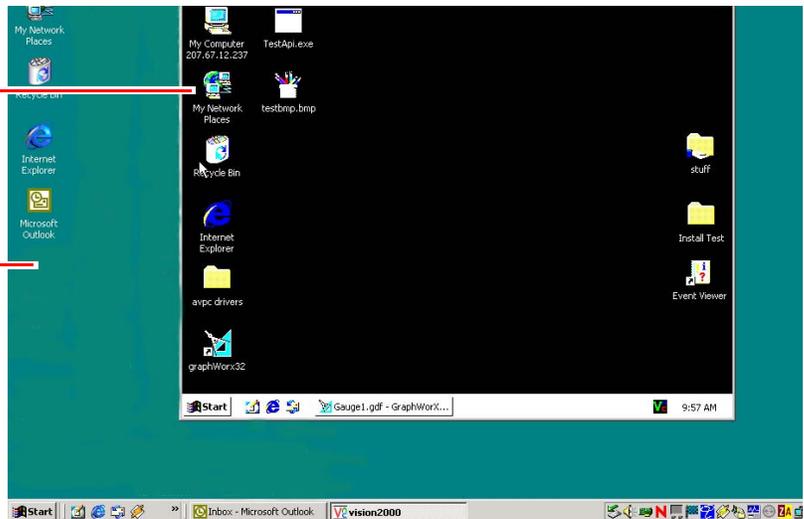


3. You are now connected to the sign's desktop. At this point, you can perform any Windows 2000 activity, such as setting the window area, changing the sign's IP address, and so on.

This is the *sign's* desktop. When you work in this window, you are working on the sign's hard drive.

This is *your* desktop. When you work in this window, you are working on your computer's hard drive.

You can go switch between desktops — just keep track of which desktop window you are currently working.

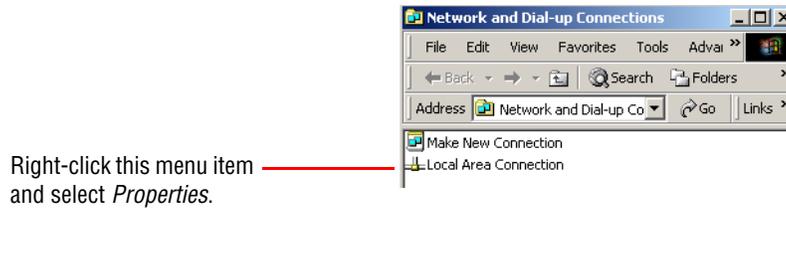


4. Right-click *My Network Places* on the *sign's* desktop and select *Properties*.

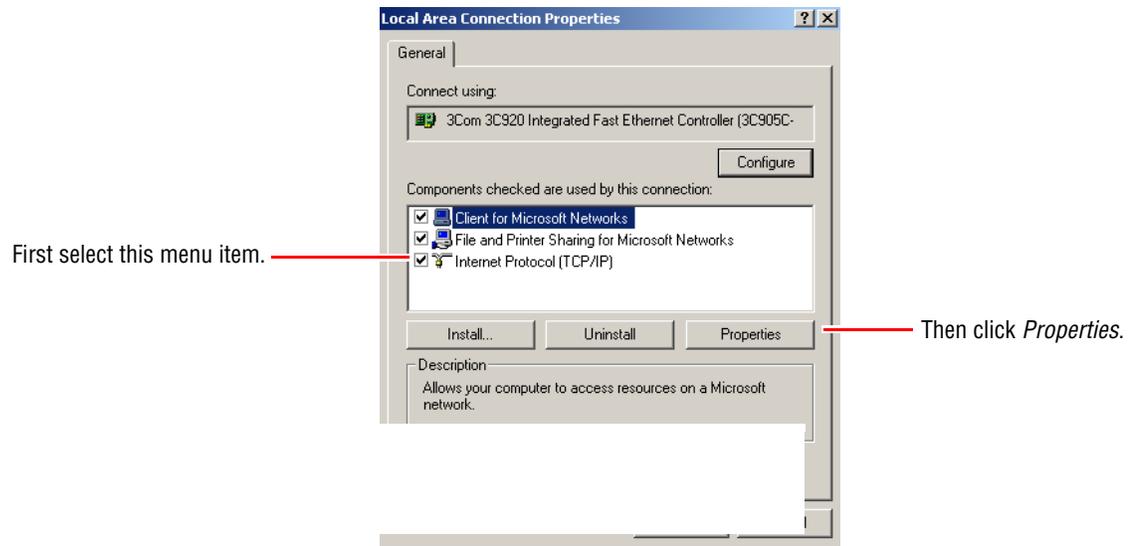


Right-click this icon on the sign's desktop and select *Properties*.

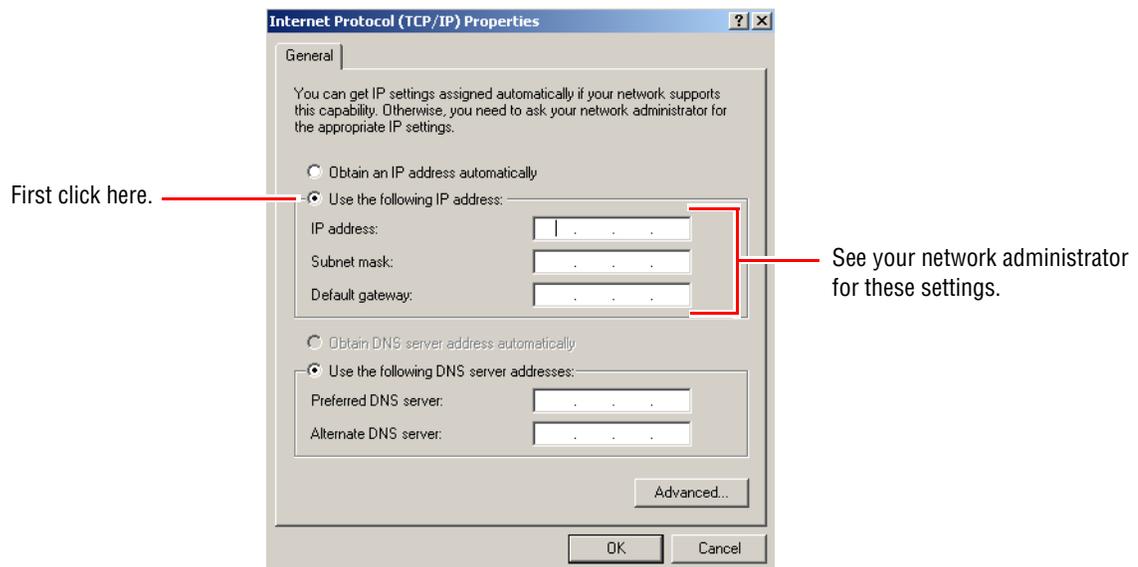
5. Right-click *Local Area Connection* and select *Properties*.



6. Select *Internet Protocol (TCP/IP)* and then click the *Properties* button.



7. Click *Use the following IP address* and then complete the appropriate settings.



8. When finished, click *OK*.

Setting an IP address on a Windows CE sign (320x32 and 192x16)

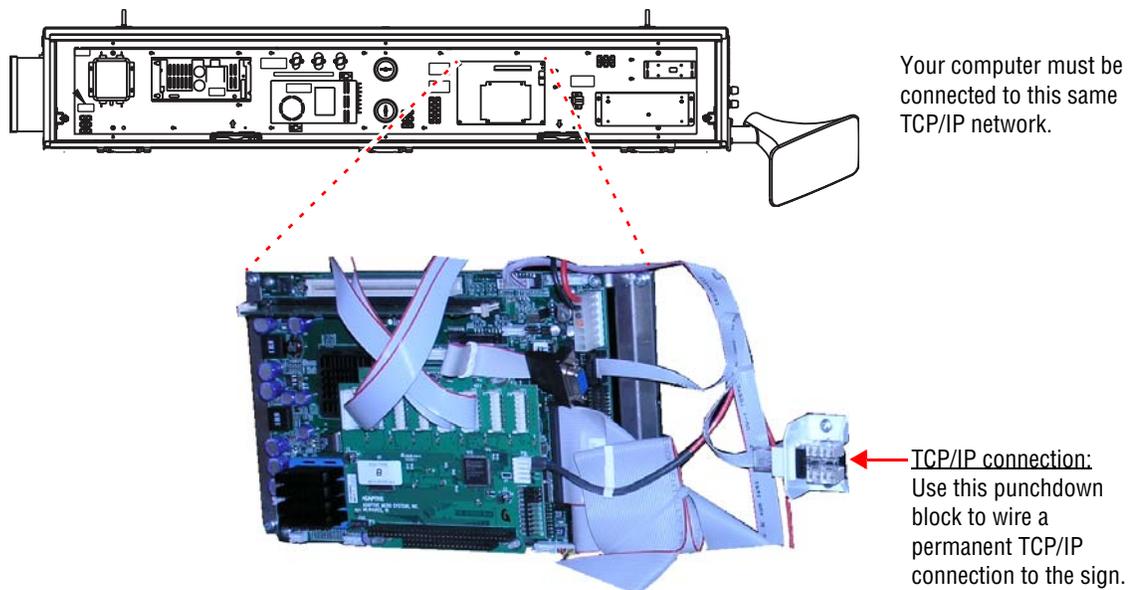
NOTE: Another way to set a sign's IP address is described in "Attaching a monitor, keyboard, and mouse directly to a Windows 2000 sign (320x128, 320x112, 320x96, 320x80, 320x64, and 320x32 with Windows 2000 option)" on page 17.

The Network Setup software allows you to change the IP address of a sign and is available from Adaptive Micro Systems.

AlphaVision PC signs are shipped with DHCP enabled. This means that a sign will *automatically* get an IP address once it is connected to a TCP/IP network. Later, you can change this DHCP IP address to a *static* IP address.

Step 1: Get a temporary IP address for the sign

1. Turn off the sign.
2. Connect the sign to a TCP/IP network.



3. Apply power to the sign. Write down the IP address that appears on the sign. An example from a 320x32 sign is shown below:

```
IP Address: 169.254.107.136
Gateway: 0.0.0.0
Subnet Mask: 255.255.0.0
MAC Address: 00-80-66-05-22-84
```

Example IP address message that appears when first starting the sign (shown for a 320x32 sign).

Step 2: Assign a static IP address to the sign using Network Setup

1. Download and save the setup file from <http://www.ams-i.com/avpc/setip.exe>.
2. Run the *setip.exe* file.

3. After *Current IP address*, type the IP address that was displayed on the sign. Then enter the new IP address:

Device Name is the name the sign will be seen as on the network. To leave the name the same, leave this box empty.

Click *Use the following IP address*

See your network administrator for these settings.

4. After you have entered the appropriate information, click *Set*.

Software

Installing software on a Windows 2000 sign's hard drive (320x128, 320x112, 320x96, 320x80, and 320x32)

Step 1: Share the CD-ROM drive

1. If you have not already done so, install and start VNC Viewer software on your computer. See “Step 3: Assign a static IP address to the sign using VNC Viewer” on page 9.
2. Open *My Computer* on your desktop.



Double-click *My Computer* to open it.

3. Right-click on the CD-ROM drive to be shared and select *Sharing...*
4. Click *Share this folder*. Then type a *Share name*. Click the *Permissions* button.

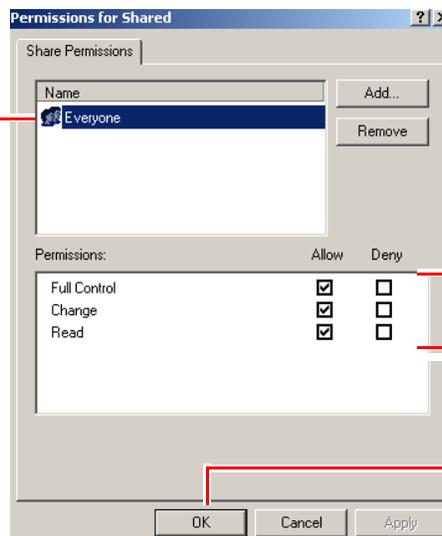


First click here.

Then type in a name for the shared folder.

Finally, click *Permissions*.

5. Select *Everyone*. Then complete the *Permissions* as appropriate. When finished, click *OK*.

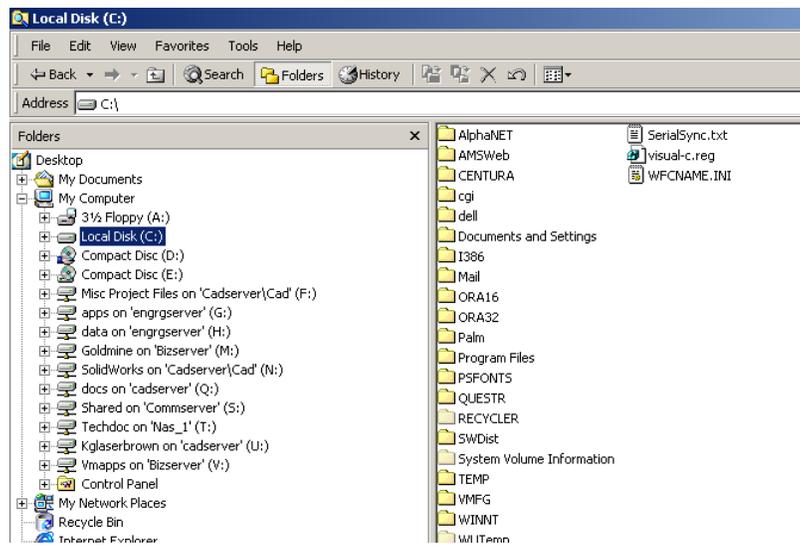


Select *Everyone*.

Then select *Allow* or *Deny* for each *Permission*.

Click *OK*.

6. On the sign's desktop, right-click the *Start* button and select *Explore*. The sign's hard drive directory appears:



7. Select *My Network Places* in the left panel and then double-click *Entire Network* in the right panel.
8. Double-click the following in the right panel, in the order given:
- Microsoft Windows Network
 - the network on which your computer resides
 - your computer (look for your name)
 - your computer's CD-ROM drive (look for the name you gave the shared file in step 3)

Step 2: Install software

1. Insert the CD into the CD-ROM drive.
2. Follow the installation prompts.

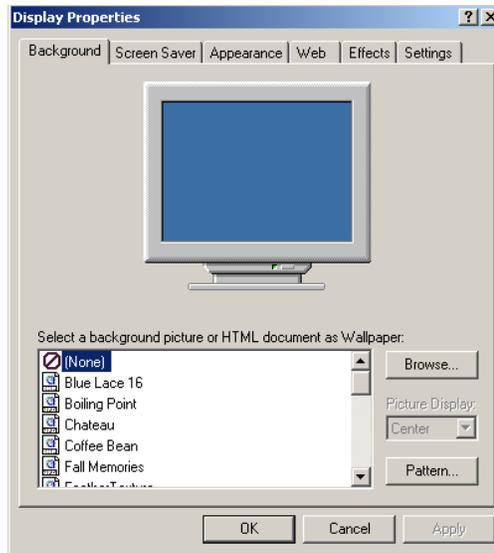
Configuring a Windows 2000 sign (320x128, 320x112, 320x96, 320x80, and 320x64)

You can view and modify your sign's current settings, as well as see some of the changes before they are actually performed.

NOTE: You will need to restart your computer after making any changes.

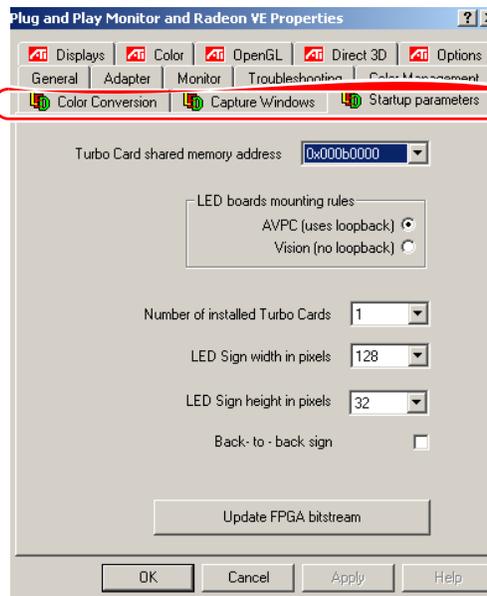
1. If you have not already done so, install and start VNC Viewer software on your computer. See "Step 1: Install VNC Viewer software on your computer" on page 8 and "Step 2: Get a temporary IP address for the sign" on page 8.

2. Right-click the sign's desktop and select *Properties*. The *Display Properties* window appears:



3. Click the *Settings* tab and then click the *Advanced* button. When the advanced properties window appears, click the *Startup parameters* tab and make the appropriate changes:

These are the properties of your sign with which you will be working.



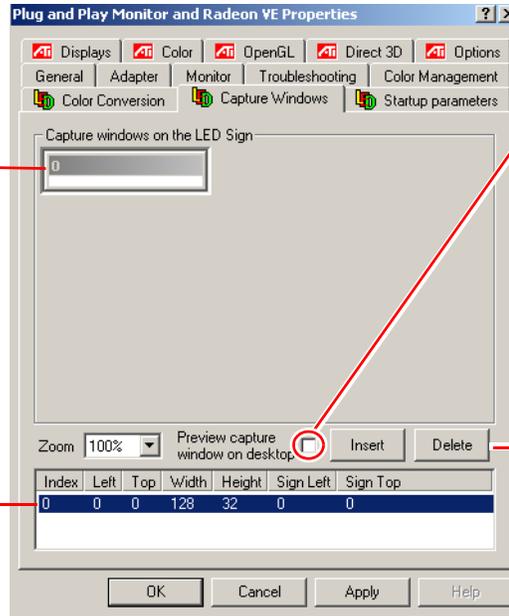
You can specify turbo card information, set the type and size of your sign, and indicate whether back-to-back mounting is used.

NOTE: These items are factory-set and changing them may adversely affect sign operation.

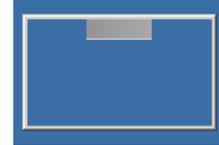
4. Click the *Capture Windows* tab and make the appropriate changes:

To resize the window, position the mouse over a corner and, when it turns into a double arrow, click and drag the window inward or outward. Note that the dimension information below changes accordingly.

Capture window dimension information

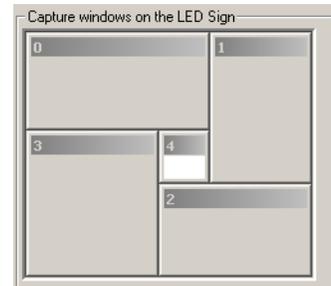


Click here to see a preview of your capture window. You can also click and drag this preview window inward and outward to change its width and height.



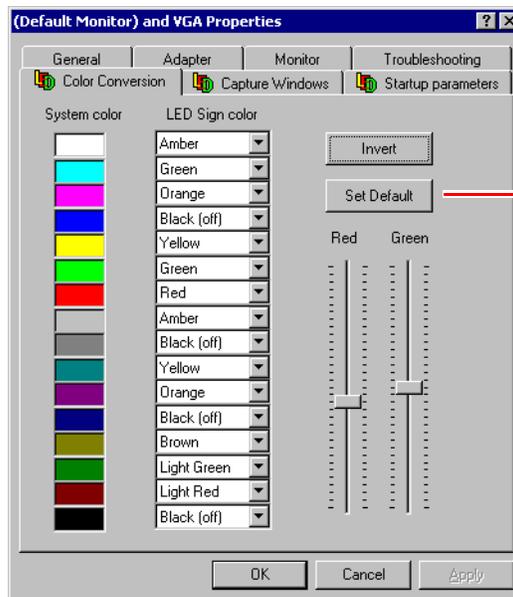
Capture window preview. You can click the gray tab and drag the window to a different area of your screen.

The *Insert* and *Delete* buttons allow you to add and delete capture windows. You can have up to 99 capture windows.



5. Click the *Color Conversions* tab and make the appropriate changes:

This setting defines how the colors of the 16-color Windows standard palette (*System color*) are converted into the eight LED colors (*LED Sign color*). For each of the 16 colors, you can specify the color to appear on the sign in its place.



Returns the settings to their original values.

6. When changes are complete, click *OK*, then follow any prompts for restarting your system.

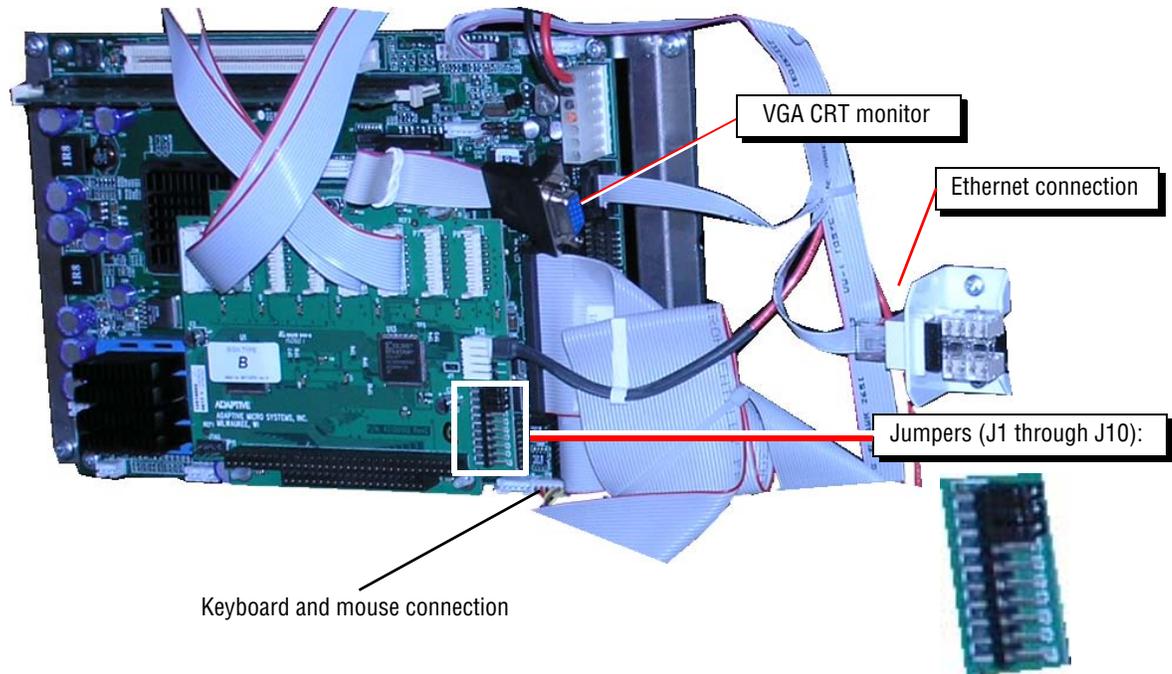
Using peripherals and options

Attaching a monitor, keyboard, and mouse directly to a Windows 2000 sign (320x128, 320x112, 320x96, 320x80, 320x64, and 320x32 with Windows 2000 option)

1. Remove power from the sign.
2. Open the sign.

NOTE: For a double-sided sign, just open the Master side.

3. Connect a VGA CRT monitor, computer keyboard and mouse to a sign's controller board as shown:



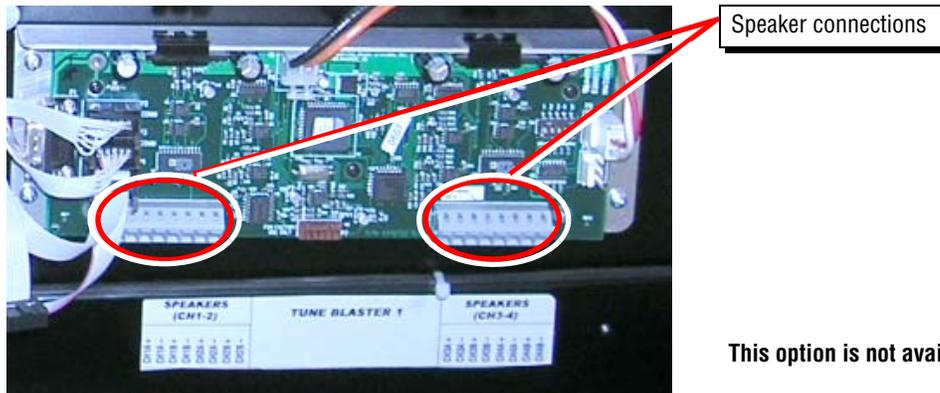
4. Apply power to the sign.

Dimming a Windows 2000 sign (320x128, 320x112, 320x96, 320x80, and 320x64)

To dim the sign by 50%, turn off the sign and attach a jumper to J8 on the sign's controller board (see above).

Installing a second TuneBlaster sound card

TuneBlaster sound card



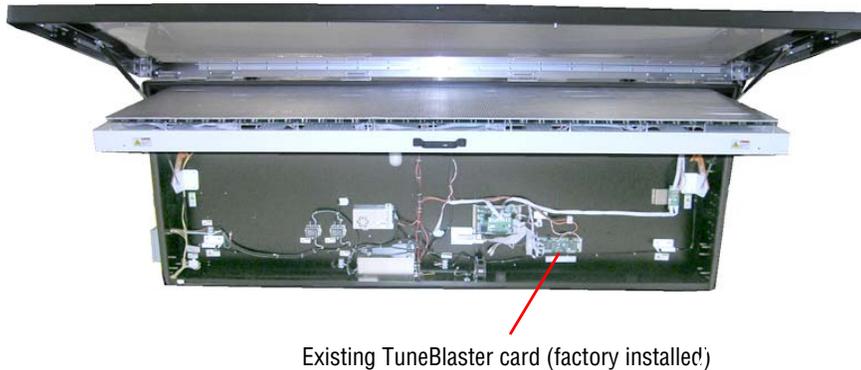
1. Remove power from the sign.



2. Open *both* sides of the sign.

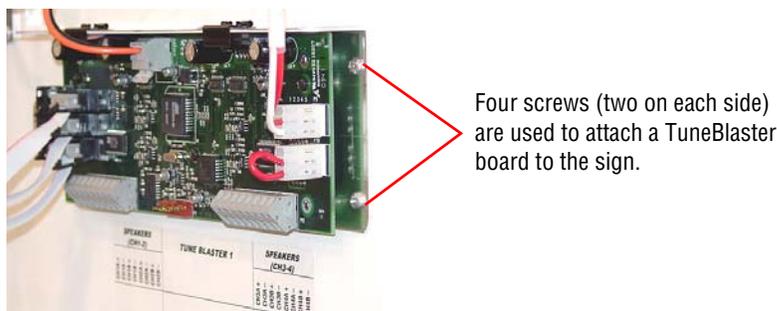


3. Locate the factory-installed TuneBlaster card and the four (4) mounting holes to the right or above the factory-installed TuneBlaster sound card.:

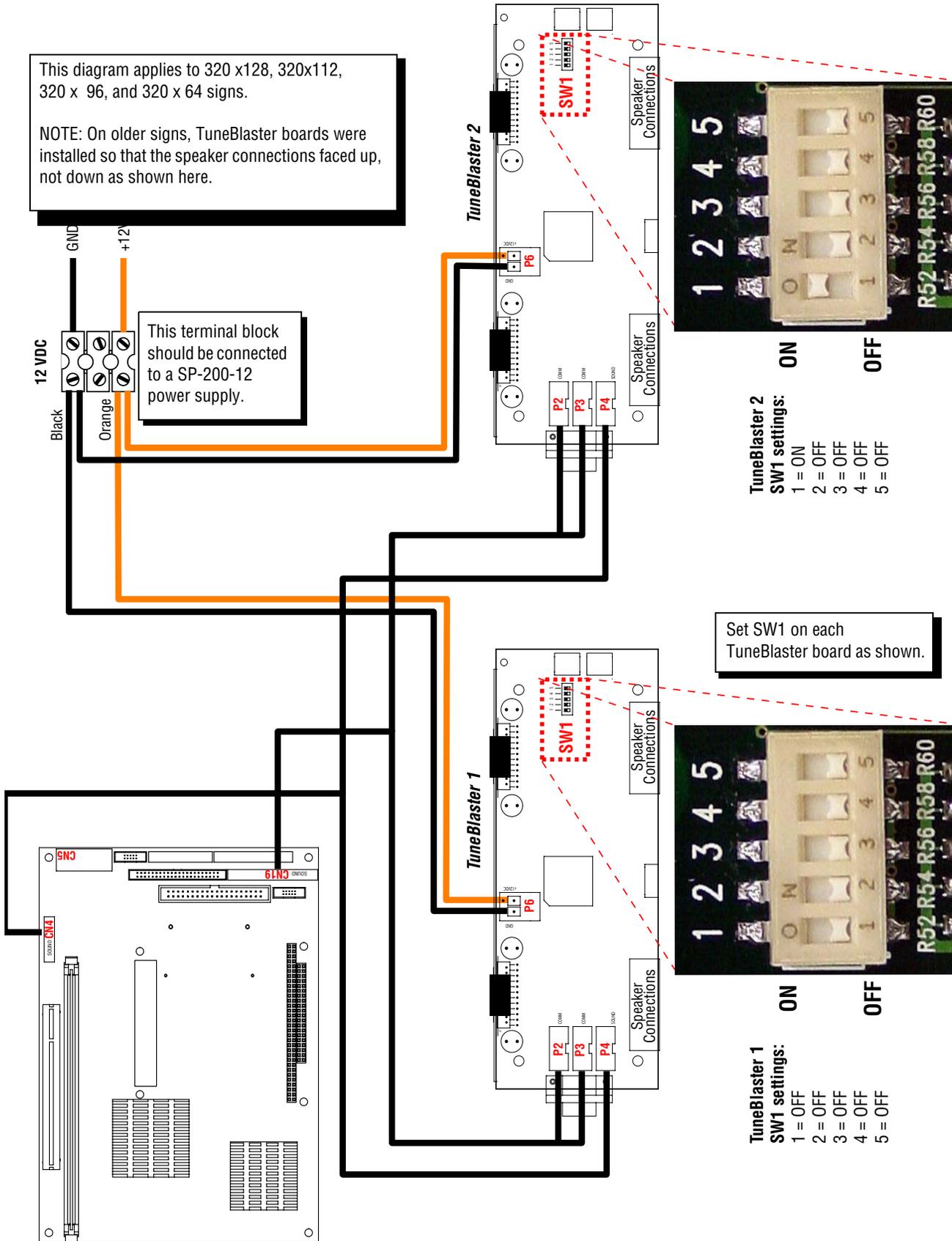


The mounting holes for the second TuneBlaster sound card are located to the right or above the installed TuneBlaster card.

4. Fasten the second TuneBlaster sound card to the sign using the four (4) mounting holes:



5. Connect the second TuneBlaster sound card as shown:



Stacklight option

The 50 mm stacklight mount (item A below) can be attached to either the left or the right side of the sign:

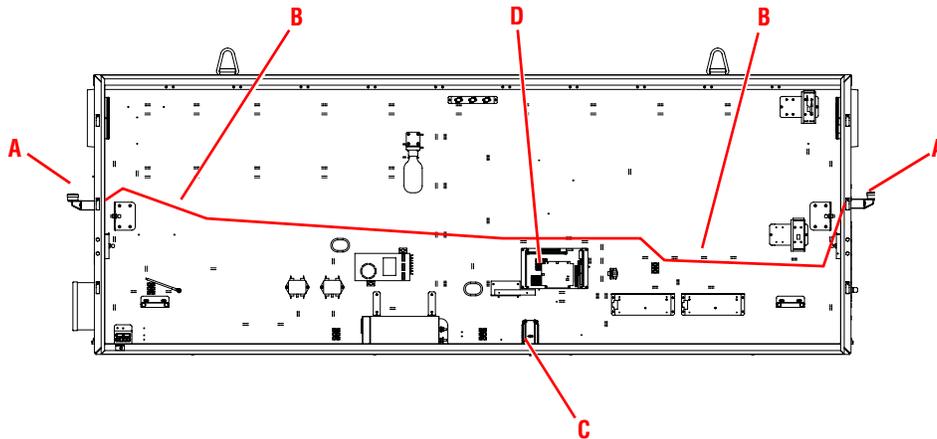
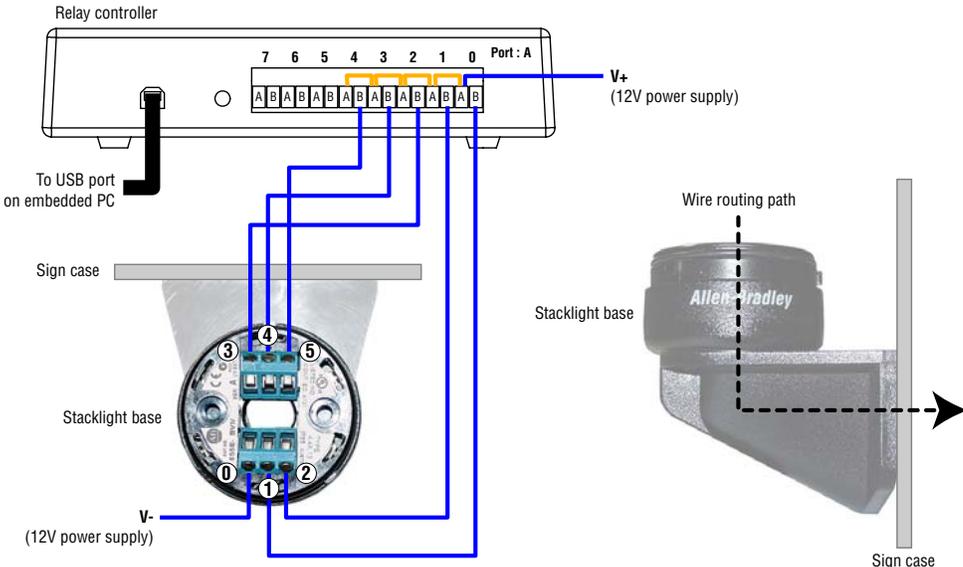


Table 3: Stacklight options

Item	Name	Description
A	Stacklight mount (only on one side)	<p>Up to 5 lights can be stacked on a 50 mm stacklight mount.</p> 
B	Stacklight wiring path (only on one side)	 <p>The diagram shows a relay controller with terminals 7, 6, 5, 4, 3, 2, 1, 0. Terminal 0 is labeled 'Part: A' and is connected to 'V+ (12V power supply)'. Terminal 1 is connected to 'V- (12V power supply)'. A USB port is connected to the sign case. The sign case is connected to the stacklight base, which has terminals 0, 1, 2, 3, 4, 5. The stacklight base is connected to the stacklight mount. A wire routing path is shown from the stacklight base to the sign case.</p>
D	Embedded PC	

Troubleshooting

Table 4: Problem/Solution chart

#	Problem	Recommended solution
1	On one side of the sign, half of the display (3 rows of LED driver boards) is a solid color, displaying garbage, or blank	<ol style="list-style-type: none"> 1. Swap the cables on the Turbo board. <ul style="list-style-type: none"> • If the problem is on the sign's Master side, swap P1 and P2. • If the problem is on the sign's Slave side, swap P5 and P6. <p>If the problem goes to the other half of the display, then the Turbo board is bad.</p> 2. Swap the cables P1 and P2 on the lower Loopback board located on the bad side of the display. <p>If the problem goes to the other half of the display, then the cable between the Turbo board and the Loopback board is bad.</p> 3. Swap the cables P4 and P5 on the lower Loopback board located on the bad side of the display. <p>If the problem goes to the other half of the display, then the Loopback board is bad.</p> 4. Swap the cables P1 and P2 on the upper Loopback board located on the bad side of the display. <p>If the problem goes to the other half of the display, then the cable between the Loopback boards is bad.</p> 5. Swap the cables P4 and P5 on the upper Loopback board located on the bad side of the display. <p>If the problem goes to the other half of the display, then the upper Loopback board is bad.</p> 6. Swap the cables going from the Loopback board to the LED driver board at the LED driver board located on the bad side of the display. <p>If the problem goes to the other half of the display, then the cable between the Loopback board and the LED driver board is bad.</p>
2	On one side of the sign, half of the display (3 rows of LED driver boards) is blank.	<ol style="list-style-type: none"> 1. Check the cable connections on the Turbo board. <ul style="list-style-type: none"> • The Master side must be plugged into P1 and P2. • The Slave side must be plugged into P5 and P6. 2. Check the power going to the first LED driver board in the chain to make sure it is getting 5v. 3. Run through the steps for problem #1 above.
3	On one side of the sign, part of the display is displaying garbage.	<ol style="list-style-type: none"> 1. Run through the steps from problem #1 above. 2. If the problem does not move, then check the turbo cables for loose connections.

Table 4: Problem/Solution chart (Continued)

#	Problem	Recommended solution
4	One side of the sign is blank.	<ol style="list-style-type: none"> 1. Check the cable connections on the Turbo board. <ul style="list-style-type: none"> • The Master side must be plugged into P1 and P2. • The Slave side must be plugged into P5 and P6. 2. On the Turbo Card, swap P1 and P2 with P5 and P6. If the problem moves to the other side of the display, then the Turbo board is bad. 3. Check the 12v power supply and all of the 5v power supplies to make sure they are outputting the correct voltage. 4. Check the power going to the first LED driver board in the chain to make sure it is getting 5v.
5	The entire sign is blank.	<ol style="list-style-type: none"> 1. Is it powered on? 2. Check the cable connections on the Turbo board. <ul style="list-style-type: none"> • The Master side must be plugged into P1 and P2. • The Slave side must be plugged into P5 and P6. 3. On the Turbo board, check the status LEDs: <ul style="list-style-type: none"> • D1 – Power • D3 – FPGA is loaded <p>If D1 is on, but D3 is not, then there could be a fault with the controller board, Turbo board, or the hard drive.</p> 4. Is the Controller's PWR LED on? 5. Do they still have communication to the display? Call Adaptive Tech Support
6	On one side of the sign, the top half of the display is showing the data for the bottom half of the display, and the bottom half of the display is showing the data for the top half of the display.	<p>The cables on the Turbo board are swapped. Swap the cables on the Turbo board:</p> <ul style="list-style-type: none"> • P1 and P2 if the problem is on the Master side. • P5 and P6 if the problem is on the Slave side.
7	A diagonal test pattern in a red, green, and amber sequence is running.	<p>Hard drive is not functioning properly:</p> <ol style="list-style-type: none"> 1. Check to make sure the hard drive IDE cable is connected to the controller board. 2. Check to make sure the voltage at the hard drive is 5 volts.
8	Display is cycling between diagonal lines, solid vertical columns, and the Ethernet information.	<p>The Test Mode DIP Switch on the TuneBlaster board is set to ON. Switch DIP Switch #5 on the TuneBlaster board to OFF</p>
9	A single LED, a row of LEDs, or a column of LEDs on one LED driver board is out.	Replace the entire LED driver board.
10	There is a <i>ghosting column</i> of LEDs (a column of LEDs that is dimly on when it is supposed to be off).	Replace the entire LED driver board.

Table 4: Problem/Solution chart (Continued)

#	Problem	Recommended solution
11	There is a <i>shorted column</i> of LEDs (a column of LEDs that is on in addition to the column that is supposed to be on).	Replace the entire LED driver board.
12	There is a <i>shorted row</i> of LEDs (a row of LEDs that is on in addition to the row that is supposed to be on).	Replace the entire LED driver board.
13	An entire LED driver board is blank, but there is data on the drivers on both sides of the blank board.	Check the power going to the LED driver board. It may not be getting the 5 volts it needs. However, if the power is good, then replace the LED driver board.
14	An entire LED driver board is blank and there is no data on the rest of the LED driver boards after it in the chain.	<ol style="list-style-type: none"> 1. Verify the LED driver board is receiving 5v and the input cable is securely attached. 2. Use a long data cable to bypass the first blank LED driver board. If the data comes back on, then the bypassed LED driver board has a bad input. Replace the bypassed LED driver board. 3. If #1 doesn't fix the problem, then use a long data cable to bypass the LED driver board to the right of the first blank LED driver board. If the data comes back on, then the bypassed LED driver board has a bad output. Replace the bypassed LED driver board.
15	No sound from sound card (TuneBlaster sound boards).	<ol style="list-style-type: none"> 1. Check cable connections between the controller board and the TuneBlaster board(s). 2. Check the speaker wiring to the TuneBlaster board(s). 3. Are the TuneBlaster board(s) getting the required 12 volts? 4. Cycle power on the display. Does the sound card play its power-up tune? 5. If there is still no sound, replace the sound card.

Appendix

Table 5: Technical specifications

Model number (see "Sign identification" on page 5)	Display size (pixels)	Sign operating system	Current ^{1,2}					Weight (approx pounds)	Dimensions ³ (L x H x W) (inches)
			Total (A)	Master sign		Slave sign			
				Max (A)	Fuse (A)	Max (A)	Fuse (A)		
AVPC320128T3-SS-W2K-A1	320 x 128 and 320 x 112 ⁴	Windows 2000	9.64	9.64	15	—	—	900	125.59 x 53.2 x 23.64
AVPC320128T3-SS-W2K-A4			10.44	10.44	15	—	—		
AVPC320128T3-SS-W2K-A8			11.54	11.54	15	—	—		
AVPC320128T3-DS-W2K-A1			18.68	9.64	15	9.04	15	1000	
AVPC320128T3-DS-W2K-A4			19.48	10.44	15	9.04	15		
AVPC320128T3-DS-W2K-A8			20.58	11.54	15	9.04	15		
AVPC320096T3-SS-W2K-A1	320 x 96 and 320 x 80 ⁴	Windows 2000	7.44	7.44	20	—	—	650	125.8 x 43.7 x 23.2
AVPC320096T3-SS-W2K-A4			8.24	8.24	20	—	—		
AVPC320096T3-SS-W2K-A8			9.34	9.34	20	—	—		
AVPC320096T3-DS-W2K-A1			14.28	7.44	20	6.84	—	870	
AVPC320096T3-DS-W2K-A4			15.08	8.24	20	6.84	—		
AVPC320096T3-DS-W2K-A8			16.18	9.34	20	6.84	—		
AVPC300032T3-SS-WCE-A1	300 x 32	Windows CE or optional Windows 2000	2.92	2.92	10	—	—	180	106.85 x 16.71 x 8.40
AVPC300032T3-SS-WCE-A4			3.72	3.72	10	—	—		
AVPC300032T3-SS-WCE-A8			4.82	4.82	10	—	—		
AVPC300032T3-DS-WCE-A1			5.24	2.92	10	2.32	—	350	
AVPC300032T3-DS-WCE-A4			6.04	3.72	10	2.32	—		
AVPC300032T3-DS-WCE-A8			7.14	4.82	10	2.32	—		
AVPC192016T3-SS-WCE-A1	192x16	Windows CE	1.47	1.47	10	—	—	80	78.5 x 11.6 x 8.5
AVPC192016T3-SS-WCE-A4			2.27	2.27	10	—	—		
AVPC192016T3-SS-WCE-A8			3.37	3.37	10	—	—		
AVPC192016T3-SS-WCE-A1			2.34	1.47	10	0.87	—	160	
AVPC192016T3-DS-WCE-A4			3.14	2.27	10	0.87	—		
AVPC192016T3-DS-WCE-A8			4.24	3.37	10	0.87	—		
AVPC320064T3-SS-W2K-A1	320 x 64 and 320 x 48 ⁴	Windows 2000	5.36	5.36	15	—	—	550	125.83 x 34.1 x 21.5
AVPC320064T3-SS-W2K-A4			6.16	6.16	15	—	—		
AVPC320064T3-SS-W2K-A8			7.26	7.26	15	—	—		
AVPC320064T3-DS-W2K-A1			10.14	5.36	15	4.77	—	650	
AVPC320064T3-DS-W2K-A4			10.94	6.16	15	4.77	—		
AVPC320064T3-DS-W2K-A8			12.04	7.26	15	4.77	—		

NOTES:

¹ Measurement conditions: amber match mode, lights on (if applicable), all speakers on, all fans on.

² If an electrical outlet option is included (for sizes 320x128, 320x112, 320x96, 320x80, or 320x64 only), the total current needs to be increased by 10 amps.

³ All sign lengths include the added length of a speaker (approximately 12 inches). The 320x32 signs ship with speakers attached. Speakers are optional on all other signs.

⁴ The maximum current is 1 amp less per side (fuse values remain the same). For example the total amperage for a double-sided sign would be 2 amps less than listed.