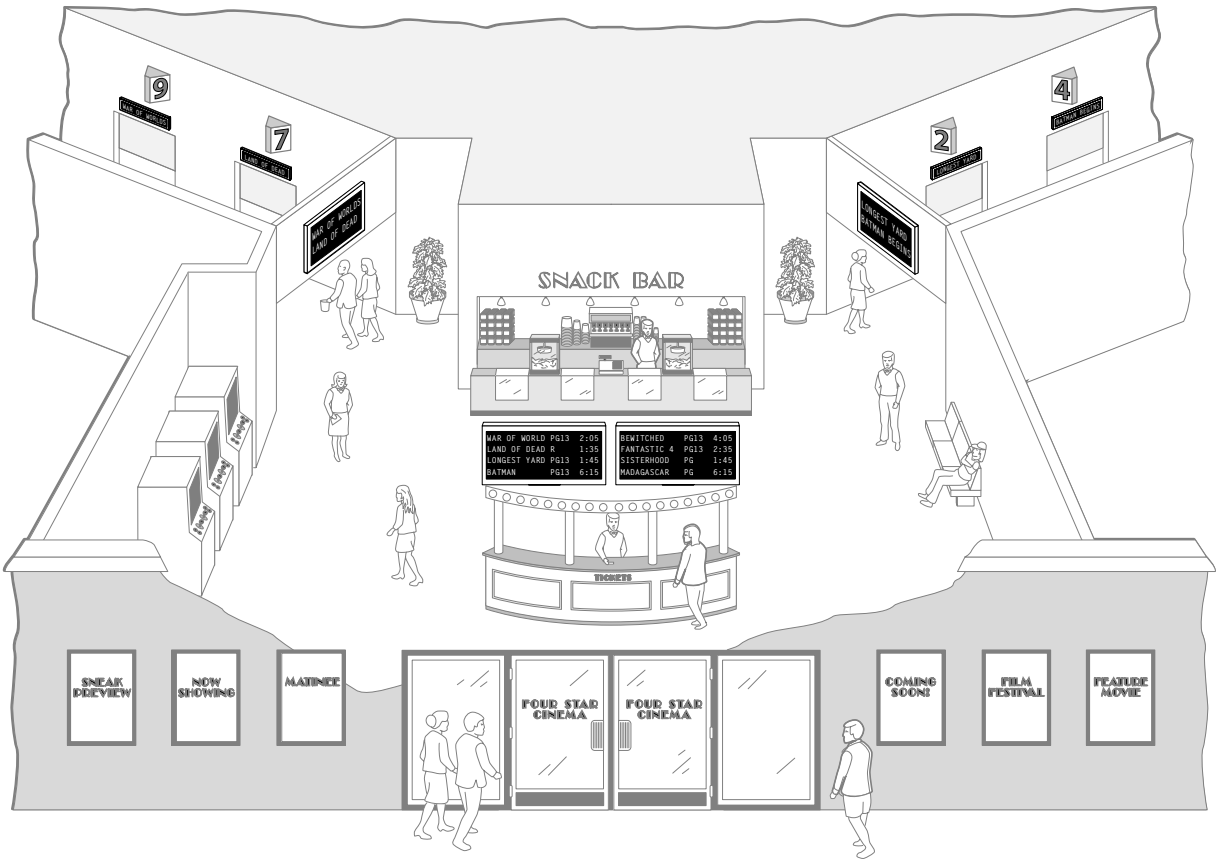
ADAPTIVE®
Connecting people, places and ideas

Theater Installation Guide



Adaptive Micro Systems • 7840 North 86th Street • Milwaukee, WI 53224 USA • 414-357-2020 • 414-357-2029 (fax) • http://www.adaptivedisplays.com

Revision history

Part number	Date	Notes
9712-7016	November 14, 2005	First release.
9712-7016B	August 24, 2006	Reorganized manual to flow in a similar sequence as an installation occurs and to add networking and addressing information.

Related documentation

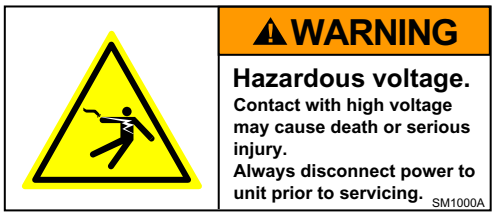
Part number	Title	Description
97112101E	AlphaVision FS Series Character Matrix Sign Installation Instructions	This 20-page document describes how to install AlphaVision™ FS series LED signs and change the serial address. Information is also included for: • environmental requirements • electrical input • reducing electrical noise • temperature controls • connecting a sign to a computer • routine maintenance • mounting specifications
97000043C	ALPHA™ Series Sign Installation Instructions	These instructions show how to change the serial address and how to mount ALPHA series signs.
97114201E	AlphaPremiere 9000 Series Sign Installation Instructions	This 22-page manual describes the AlphaPremiere™ 9000 series LED sign. The 9000 series are 4-line, full-matrix, indoor LED signs that can be networked together. These signs can display both text and graphics, and speakers in the sign can generate tones.
97101401A	Alpha 220C Sign Trim Kit Installation Guide	This document describes how to install an Alpha 220C sign into the optional trim kit enclosure.
97000043C	ALPHA™ Series Sign Installation Instructions	These instructions show how to change the serial address and how to mount ALPHA series signs.
97040002	ALPHA™ Remote Control Programming Manual	This document describes how to use an infrared Remote Control to program the following signs: Alpha 200, 300, 400, 4000, and 7000 series signs. Also for Big Dot and Solar signs.

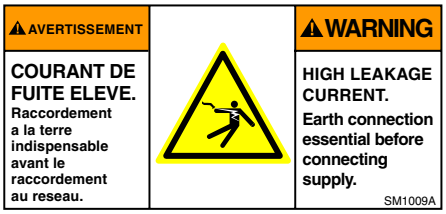
Contents

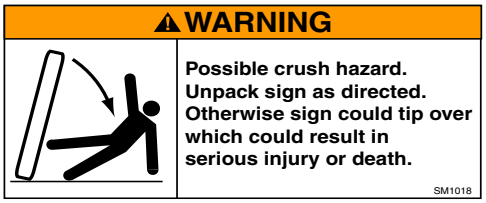
Safety information

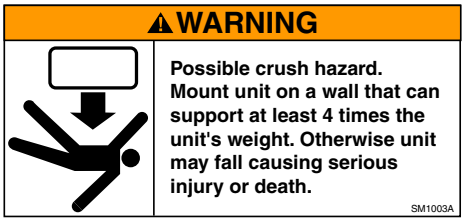
Warnings and cautions

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

How to use this guide

This guide is intended to assist you with the configuration of ALPHA™ displays in your theater. Before you hang the first display and power it on, you need to ensure the data communication lines and electrical outlets are correctly wired and in the right locations. Once this has been accomplished, we recommend that you address the displays prior to mounting them.

Finally, we address some basic setup steps for the Simply Theatre Signs software. You can obtain further software training and configuration assistance by enrolling in Adaptive Micro Systems STS E-training program.

For questions regarding this guide or available products for the theater industry, please refer to “Adaptive Micro Systems Contact Information” on page 50.

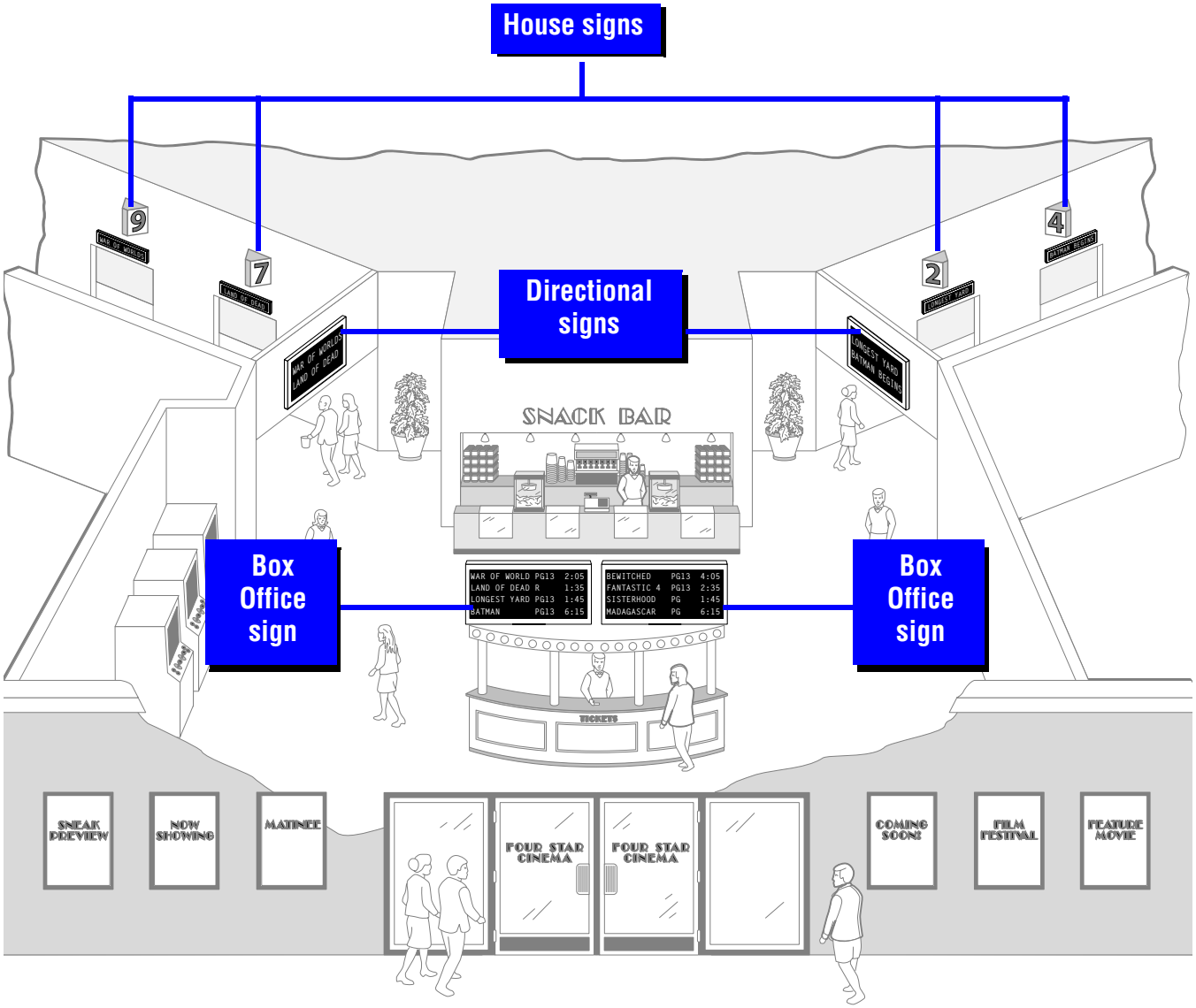
This guide consists of seven sections:

Section	Description
Safety	Important safety information regarding the installation of theater signage.
Introduction	Basic information regarding this guide.
Electrical and data requirements	• Power requirements for Box Office, directional, and house signs • Sign networking and addressing • About networking signs • RS485 Converter Box • About addressing signs
Addressing and hanging Box Office and directional signs	• Wall mounting specifications • Setting Box Office and directional sign addresses • Mounting Box Office and directional signs • Mounting light boxes
Addressing and hanging house signs	• Setting house sign address • Ceiling and wall mounting house signs
Setting up and configuring STS	• Connecting the RS485 adapter • Making the connections • Configuring STS • Verifying the installation
Appendix	• Sign identification • Converter Box • RS485 data cable information

Overview

This guide provides requirements and steps for installing Box Office, House, and Directional signs in a theater. Additionally, information regarding networking, addressing and installing Simply Theater Software is also provided.

Figure 1: Sample signage arrangement in a theater.

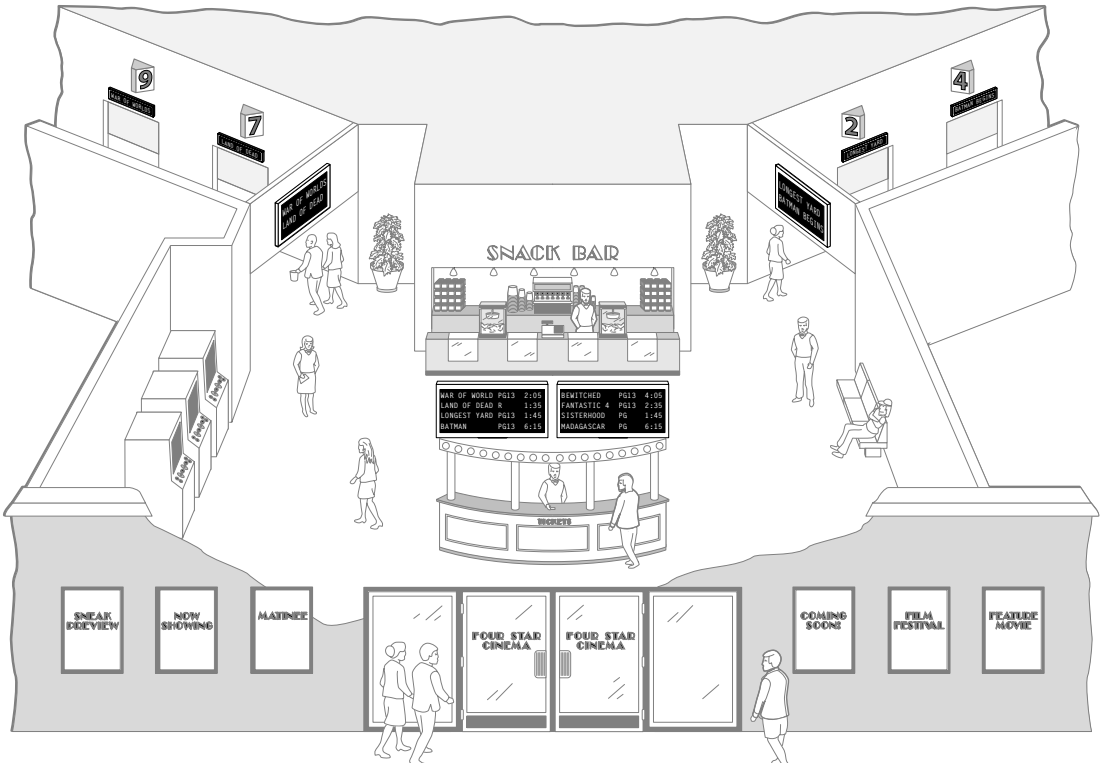


Purpose

This manual is intended for the theater signage installer. Please refer to "Related documentation" on the inside cover for more specific information about specific signs.

Electrical and Data Requirements

Overview



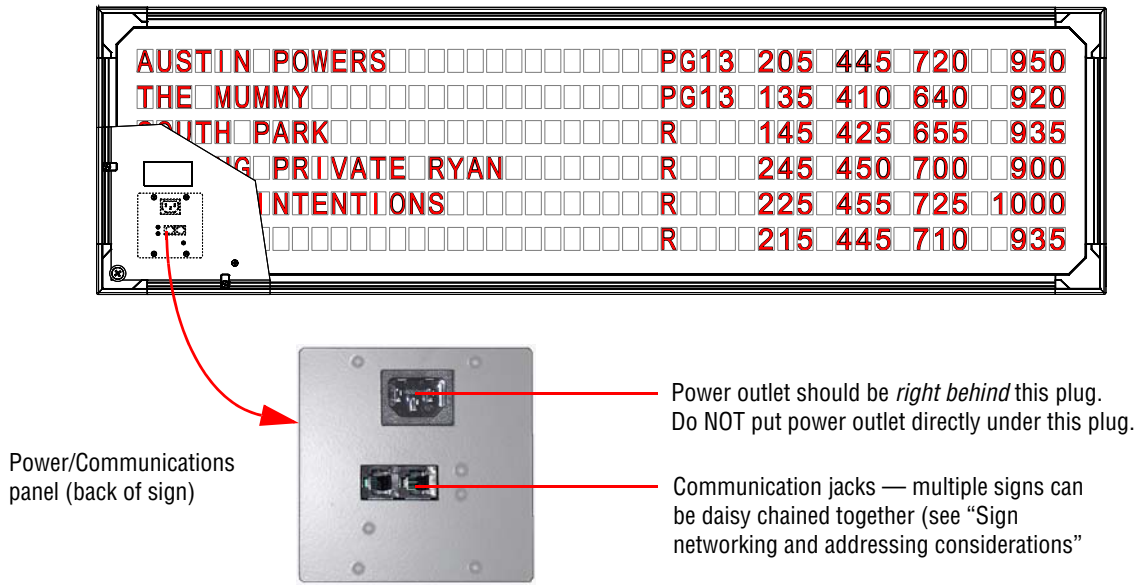
Prior to hanging signs, power and data should be run to the sign locations. The following topics are covered in this section:

Power and data requirements

Power and data hookups for Box Office and directional signs

Important! All cables should be kept as short as possible to ensure effective communication.

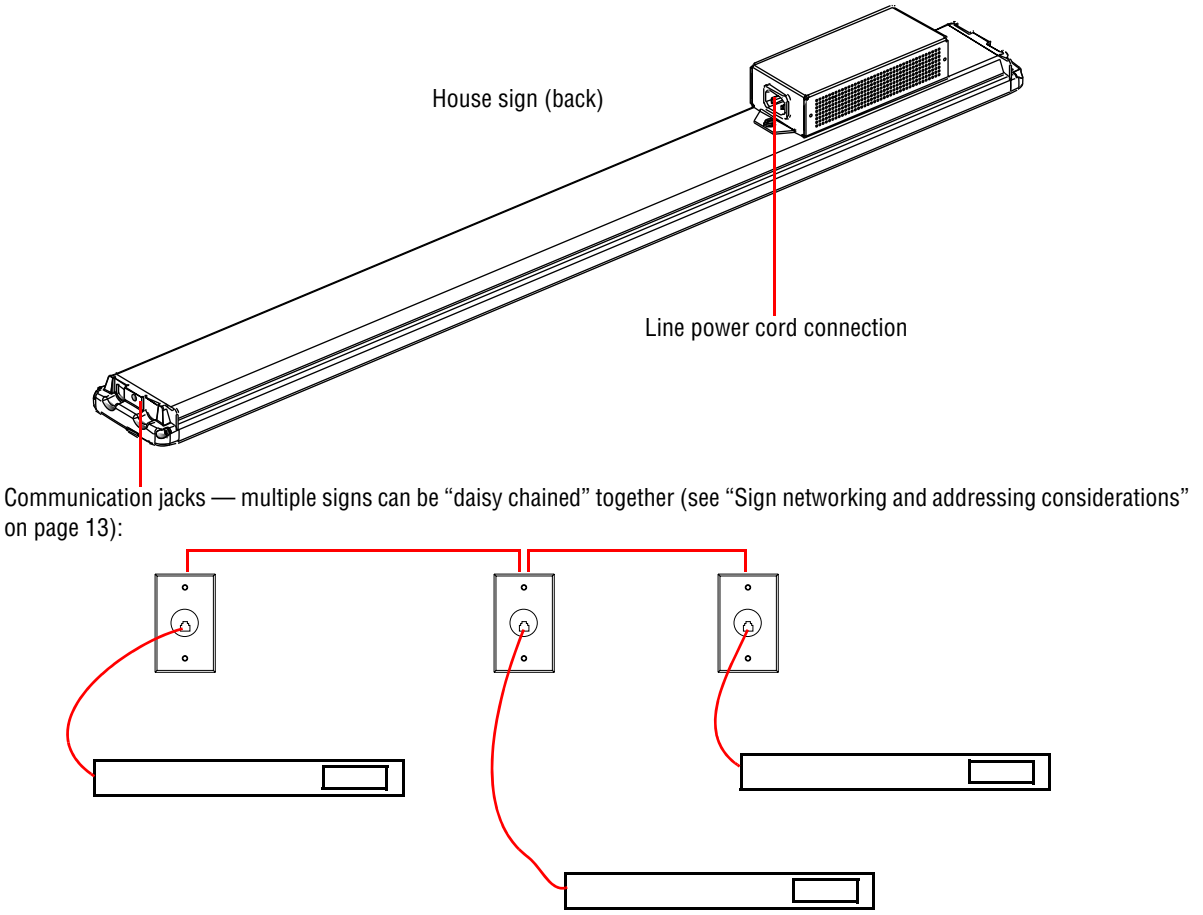
Figure 2: Power and communication hookup for Box Office and directional signs



Power and data hookups for house signs

Important! All cables should be kept as short as possible to ensure effective communication.

Figure 3: Power and communication hookup for house signs

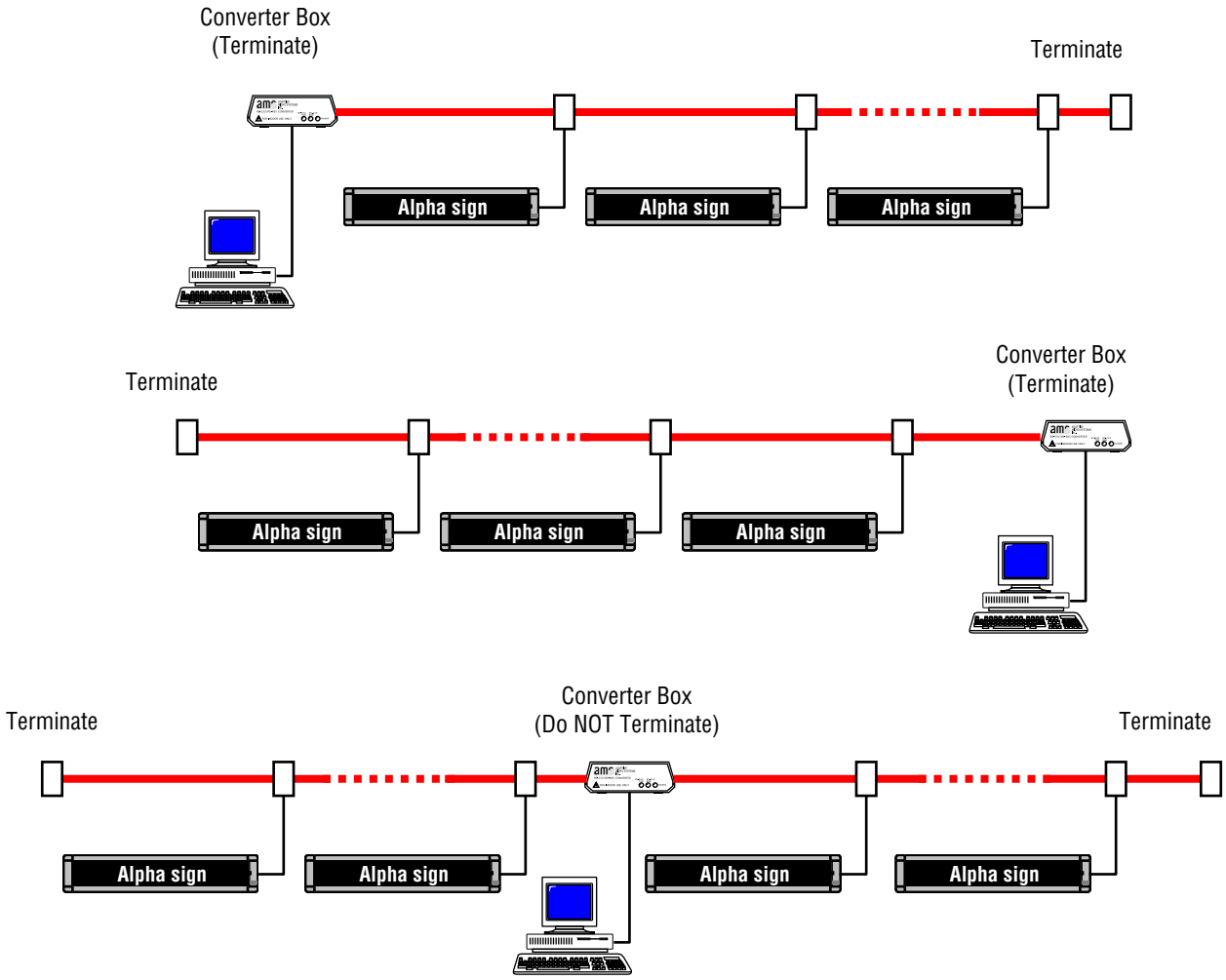


Sign networking and addressing considerations

About networking signs

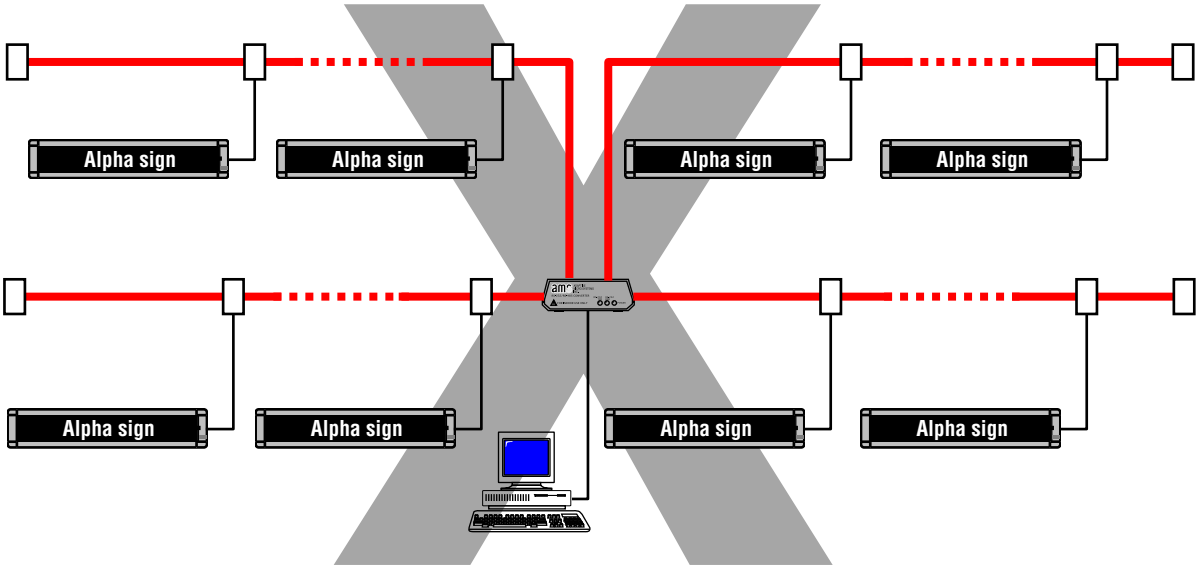
Signs must be networked together in a bus topology. The bus topology uses a single cable from one end of the network to the other end. Signs, computers, or other devices can be added throughout the network at different locations.

Figure 4: Acceptable sign network topology: Bus topology (single branch or "daisy chaining")



Other network topologies, such as the one in the following illustration, are not recommended.

Figure 5: Unacceptable network topology: Star topology (multiple branches)



RS485 Converter Box

The signs communicate on an RS485 network which is the best choice for transferring messages over long distances. This means that messages sent from the computer must be converted to RS485. The RS485 converter box is used for this purpose. It must be located between the sign computer and the signs. See Figure 6: "Method 1 — Converter Box located at one end of sign network" and Figure 7: "Method 2 — Converter Box located in middle of sign network" for examples of where to position the converter box on the network.

NOTE: See “Converter Box” on page 47 and “RS485 data cable information” on page 48 for more information RS485 converter boxes and cable specifications.

Figure 6: Method 1 — Converter Box located *at one end* of sign network

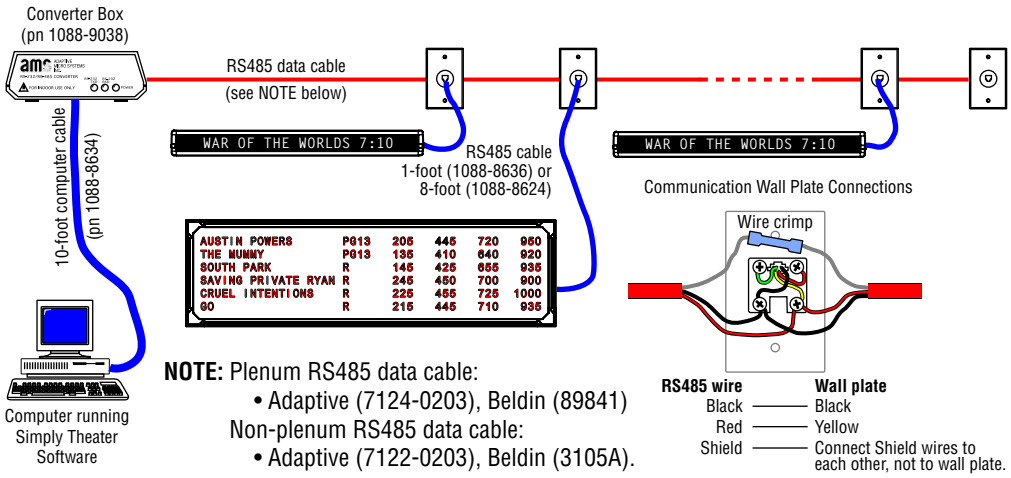
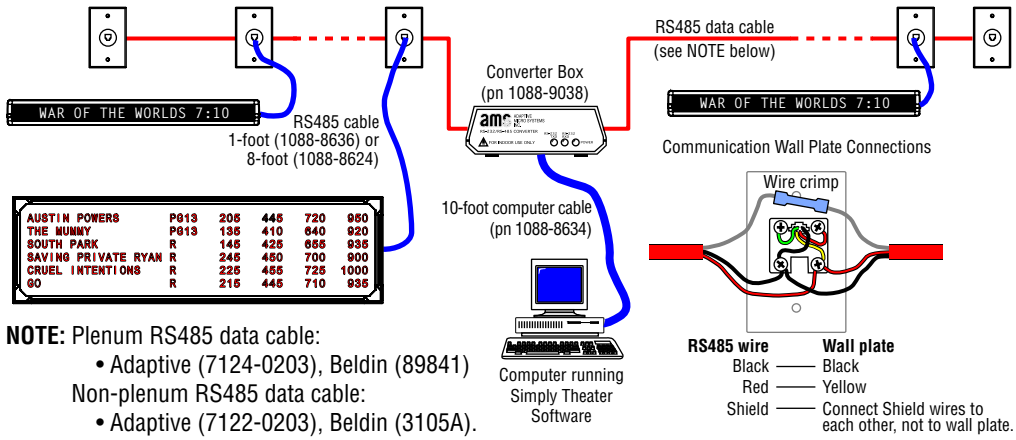


Figure 7: Method 2 — Converter Box located in *middle* of sign network



NOTE: Plenum RS485 data cable:
- Adaptive (7124-0203), Beldin (89841)

Non-plenum RS485 data cable:
- Adaptive (7122-0203), Beldin (3105A).

About addressing signs

The software and network uses sign addresses to identify each sign and send messages. To send messages to the correct signs, they must be correctly addressed. To make this easier, there is an addressing convention for each type of sign. By using this convention, you can be confident that the right messages will display on the appropriate sign(s). In general, sign addressing follows the conventions listed in Table 1: "Sign addressing conventions"

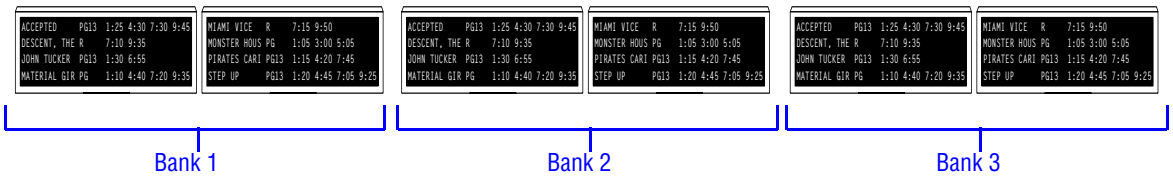
Table 1: Sign addressing conventions

Sign Type	Starting Address
Box Office	1
Directional	10
House	Match auditorium number
Outdoor	31

Box Office sign addressing considerations

If your theater will display performance information on Box Office signs and will repeat the information, you can duplicate addresses.

Figure 8: Sign banks



Example

A theater with multiple Box Offices wants to repeat the performance list three times. It takes two signs to display the full performance listing. These two signs are referred to as a "bank." This same exact information can be repeated on the other two sign banks. To do this, they set the address for the first sign in each bank to 1 and the address for the second sign in each bank to 2.

When the sign addressing is set up this way, all Box Office signs with the same address will display the same information at the same time.

Sign addressing and the hexadecimal numbering system

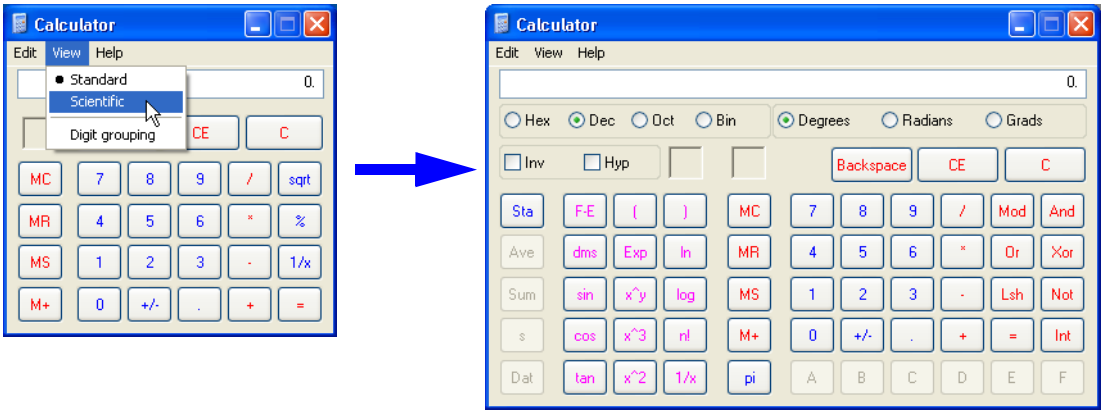
The hexadecimal numbering system is used to represent the sign address on the network. In this numbering system, 15 different numerals can be used in each of its positions. Since we only have 1-digit numerals 0-9, the hexadecimal system uses the letters A through F to represent the extra numerals.

When a sign powers up, it uses the hexadecimal numbering system to display its address. This will appear familiar for sign addresses 1-9. But for an address of 10, for example, it would display 0A.

You can use the Windows Calculator to quickly convert addresses between the numbering systems.

To convert addresses between numbering systems:

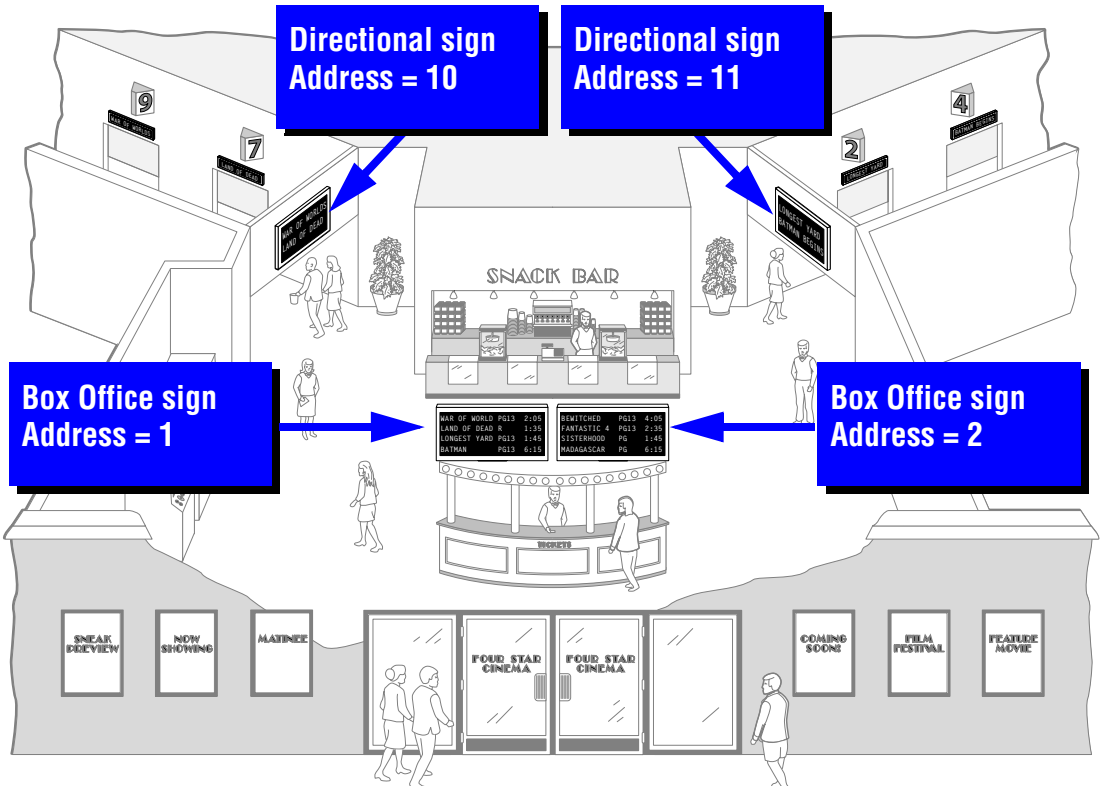
1. On a computer with Windows, open the Calculator.
2. Select **View | Scientific**.



3. To convert a hexadecimal value to a decimal value, do the following:
   - Select the **Hex** option.
   - Enter the (hexadecimal) address appearing on the sign.
   - Select the **Dec** option. The decimal value will appear on the Calculator.
4. To convert a decimal value to a hexadecimal value, do the following:
   - Select the **Dec** option.
   - Enter the address you want to convert to hexadecimal.
   - Select the **Hex** option. The hexadecimal value will appear on the Calculator.

Addressing and Hanging Box Office and Directional Signs

Overview

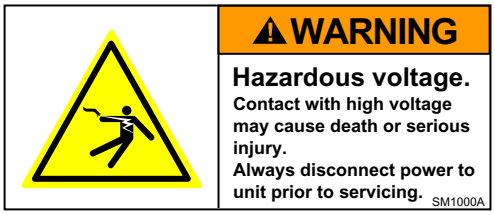


The following topics are covered in this section:

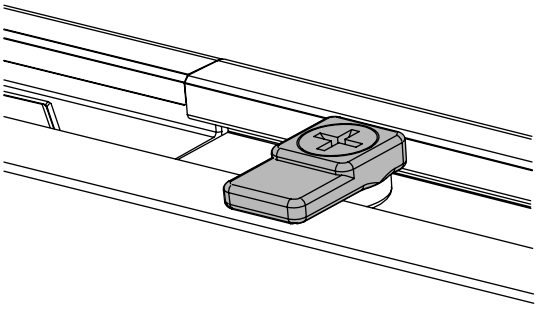
Setting Box Office and Directional Sign Addresses

Step 1: Open the sign

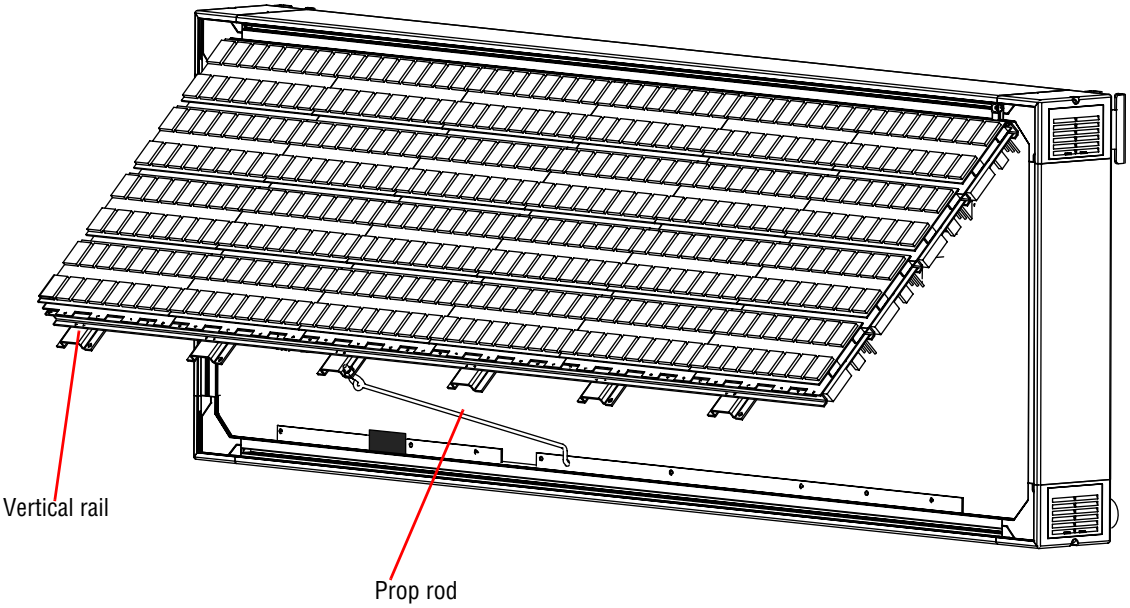
1. Remove power from the sign.



2. Remove the sign's cover by loosening the clips that hold the cover in place:

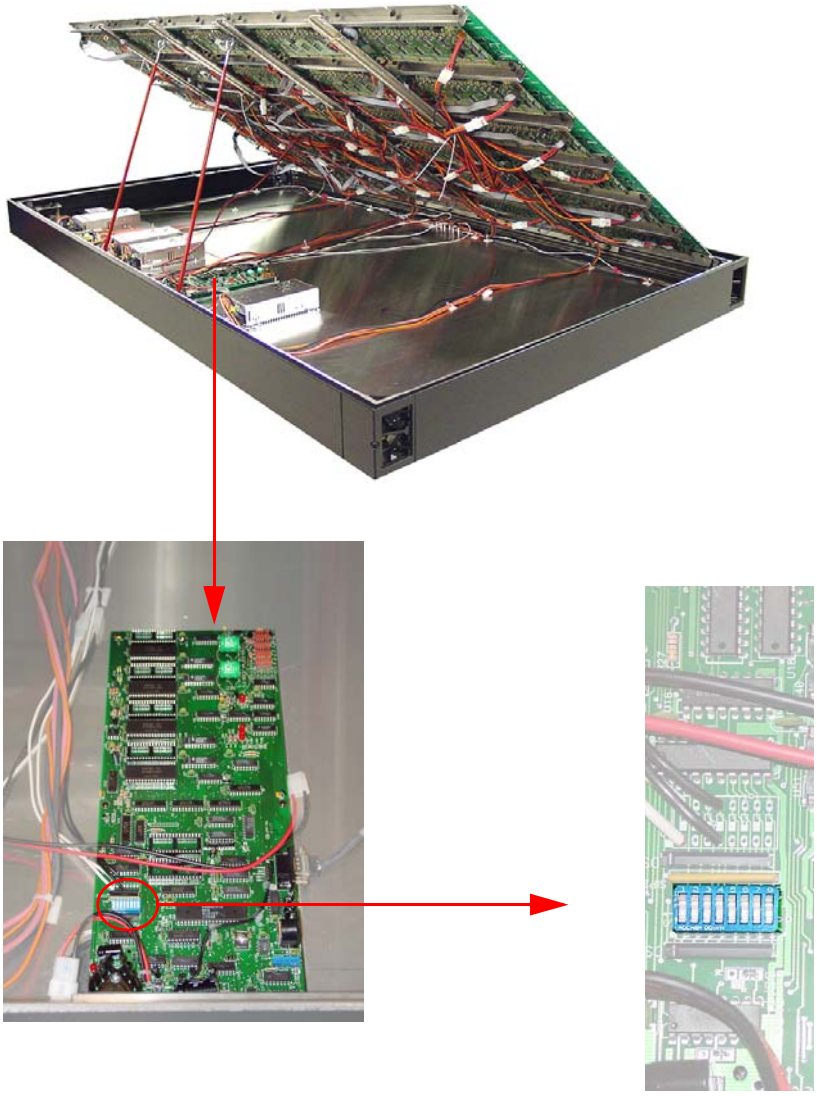


3. Unscrew the vertical rails that hold the LED boards. Then lift up frame holding the LED boards and use the sign's prop rod to hold the frame open:

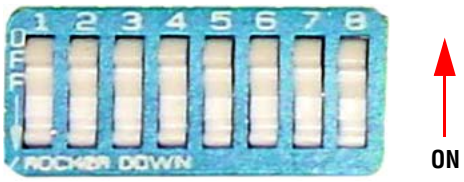


Step 2: Set the sign's DIP switches

1. Locate the sign's DIP switches:.



2. Set the sign's DIP switches as shown below:



For this address . . .	Set these DIP switches . . .							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	**ON**	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	**ON**	OFF	OFF	OFF	OFF	OFF	OFF
3	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF
5	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF	OFF
6	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF
7	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	**ON**	OFF	OFF	OFF	OFF
9	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF	OFF
10	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF
11	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF
12	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF
13	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF
14	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF
15	**ON**	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	OFF
17	**ON**	OFF	OFF	OFF	**ON**	OFF	OFF	OFF
18	OFF	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF
19	**ON**	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF
20	OFF	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF
21	**ON**	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF
22	OFF	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF
23	**ON**	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF
24	OFF	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF
25	**ON**	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF
26	OFF	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF
27	**ON**	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF
28	OFF	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF
29	**ON**	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF
30	OFF	**ON**	**ON**	**ON**	**ON**	OFF	OFF	OFF

Mounting Box Office and directional signs

Wall mounting specifications

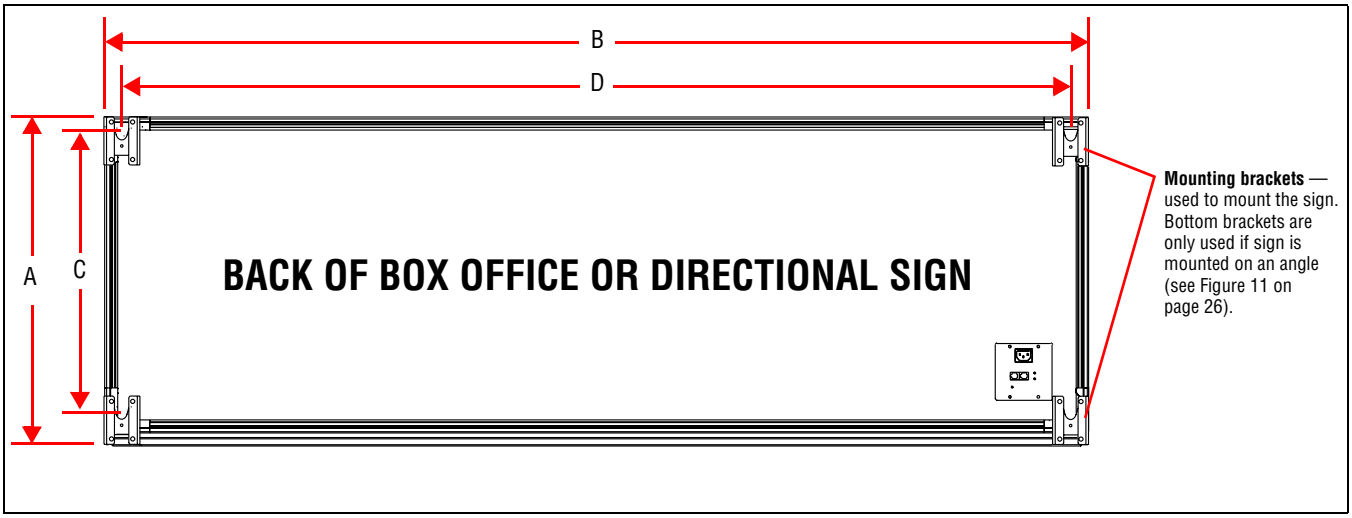


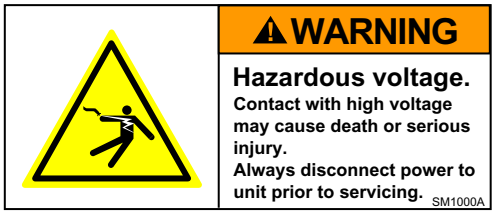
Table 2: Wall mounting specifications

Model number (see "Sign identification" on page 46)	Character size	Dimensions				Weight (approx.)
		A (Height)	B (Width)	C (*Vertical* center-to-center distance between shoulder bolts)	D (*Horizontal* center-to-center distance between shoulder bolts)	
TCM032006P02zzz	1.4 inch	17.65 in. 44.8 cm.	43.20 in. 109.7 cm.	15.03 in. 38.2 cm.	40.58 in. 103.1 cm.	60 lbs. 27 kg.
TCM032008P02zzz		22.05 in. 56.0 cm.	43.20 in. 109.7 cm.	19.43 in. 49.4 cm.	40.58 in. 103.1 cm.	71 lbs. 32 kg.
TCM032010P02zzz		26.46 in. 67.2 cm.	43.20 in. 109.7 cm.	23.84 in. 60.5 cm.	40.58 in. 103.1 cm.	82 lbs. 37 kg.
TCM032012P02zzz		30.83 in. 78.3 cm.	43.20 in. 109.7 cm.	28.21 in. 71.5 cm.	40.58 in. 103.1 cm.	93 lbs. 42 kg.
TCM040006P02zzz		17.65 in. 44.8 cm.	52.83 in. 134.2 cm.	15.03 in. 38.2 cm.	50.21 in. 127.5 cm.	71 lbs. 32 kg.
TCM040008P02zzz		22.05 in. 56.0 cm.	52.83 in. 134.2 cm.	19.43 in. 49.4 cm.	50.21 in. 127.5 cm.	82 lbs. 37 kg.
TCM040010P02zzz		26.46 in. 67.2 cm.	52.83 in. 134.2 cm.	23.84 in. 60.6 cm.	50.21 in. 127.5 cm.	93 lbs. 42 kg.
TCM040012P02zzz		30.83 in. 78.3 cm.	52.83 in. 134.2 cm.	28.21 in. 71.6 cm.	50.21 in. 127.5 cm.	104 lbs. 47 kg.
TCM048006P02zzz		17.65 in. 44.8 cm.	62.40 in. 158.5 cm.	15.03 in. 38.2 cm.	59.78 in. 151.8 cm.	82 lbs. 37 kg.
TCM048008P02zzz		22.05 in. 56.0 cm.	62.40 in. 158.5 cm.	19.43 in. 49.4 cm.	59.78 in. 151.8 cm.	93 lbs. 42 kg.
TCM048010P02zzz		26.46 in. 67.2 cm.	62.40 in. 158.5 cm.	23.84 in. 60.6 cm.	59.78 in. 151.8 cm.	104 lbs. 47 kg.
TCM048012P02zzz		30.83 in. 78.3 cm.	62.40 in. 158.5 cm.	28.21 in. 71.6 cm.	59.78 in. 151.8 cm.	116 lbs. 53 kg.

Table 2: Wall mounting specifications (Continued)

Model number (see "Sign identification" on page 46)	Character size	Dimensions				Weight (approx.)
		A (Height)	B (Width)	C (*Vertical* center-to-center distance between shoulder bolts)	D (*Horizontal* center-to-center distance between shoulder bolts)	
TCM024004P03zzz	2.1 inch	17.92 in. 45.5 cm.	48.77 in. 123.9 cm.	15.30 in. 38.86 cm.	46.15 in. 117.2 cm.	55 lbs. 25 kg.
TCM024006P03zzz		24.52 in. 62.3 cm.	48.77 in. 123.9 cm.	21.90 in. 55.6 cm.	46.15 in. 117.2 cm.	74 lbs. 33.5 kg.
TCM024008P03zzz		31.15 in. 79.1 cm.	48.77 in. 123.9 cm.	28.53 in. 72.5 cm.	46.15 in. 117.2 cm.	93 lbs. 42 kg.
TCM024010P03zzz		37.71 in. 95.8 cm.	48.77 in. 123.9 cm.	35.09 in. 89.1 cm.	46.15 in. 117.2 cm.	112 lbs. 50.1 kg.
TCM024012P03zzz		44.33 in. 112.6 cm.	48.77 in. 123.9 cm.	41.71 in. 105.9 cm.	46.15 in. 117.2 cm.	131 lbs. 59.4 kg.
TCM032004P03zzz		17.92 in. 45.5 cm.	63.15 in. 160.4 cm.	15.30 in. 38.86 cm.	60.53 in. 153.7 cm.	74 lbs. 33.5 kg.
TCM032006P03zzz		24.52 in. 62.3 cm.	63.15 in. 160.4 cm.	21.90 in. 55.6 cm.	60.53 in. 153.7 cm.	93 lbs. 42 kg.
TCM032008P03zzz		31.15 in. 79.1 cm.	63.15 in. 160.4 cm.	28.53 in. 72.5 cm.	60.53 in. 153.7 cm.	112 lbs. 50.1 kg.
TCM032010P03zzz		37.71 in. 95.8 cm.	63.15 in. 160.4 cm.	35.09 in. 89.1 cm.	60.53 in. 153.7 cm.	131 lbs. 59.4 kg.
TCM032012P03zzz		44.33 in. 112.6 cm.	63.15 in. 160.4 cm.	41.71 in. 105.9 cm.	60.53 in. 153.7 cm.	150 lbs. 68 kg.
TCM040004P03zzz		17.92 in. 45.5 cm.	77.55 in. 197 cm.	15.30 in. 38.86 cm.	74.93 in. 190.3 cm.	93 lbs. 42 kg.
TCM040006P03zzz		24.52 in. 62.3 cm.	77.55 in. 197 cm.	21.90 in. 55.6 cm.	74.93 in. 190.3 cm.	112 lbs. 50.1 kg.
TCM040008P03zzz		31.15 in. 79.1 cm.	77.55 in. 197 cm.	28.53 in. 72.5 cm.	74.93 in. 190.3 cm.	131 lbs. 59.4 kg.
TCM040010P03zzz		37.71 in. 95.8 cm.	77.55 in. 197 cm.	35.09 in. 89.1 cm.	74.93 in. 190.3 cm.	150 lbs. 68 kg.
TCM040012P03zzz		44.33 in. 112.6 cm.	77.55 in. 197 cm.	41.71 in. 105.9 cm.	74.93 in. 190.3 cm.	169 lbs. 76.7 kg.
TCM048004P03zzz		17.92 in. 45.5 cm.	91.96 in. 233.6 cm.	15.30 in. 38.86 cm.	89.34 in. 226.9 cm.	112 lbs. 50.1 kg.
TCM048006P03zzz		24.52 in. 62.3 cm.	91.96 in. 233.6 cm.	21.90 in. 55.6 cm.	89.34 in. 226.9 cm.	131 lbs. 59.4 kg.
TCM048008P03zzz		31.15 in. 79.1 cm.	91.96 in. 233.6 cm.	28.53 in. 72.5 cm.	89.34 in. 226.9 cm.	150 lbs. 68 kg.
TCM048010P03zzz		37.71 in. 95.8 cm.	91.96 in. 233.6 cm.	35.09 in. 89.1 cm.	89.34 in. 226.9 cm.	169 lbs. 76.7 kg.
TCM048012P03zzz		44.33 in. 112.6 cm.	91.96 in. 233.6 cm.	41.71 in. 105.9 cm.	89.34 in. 226.9 cm.	188 lbs. 85.3 kg.

Preparation



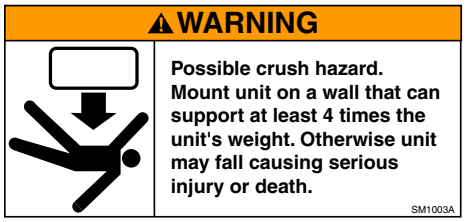
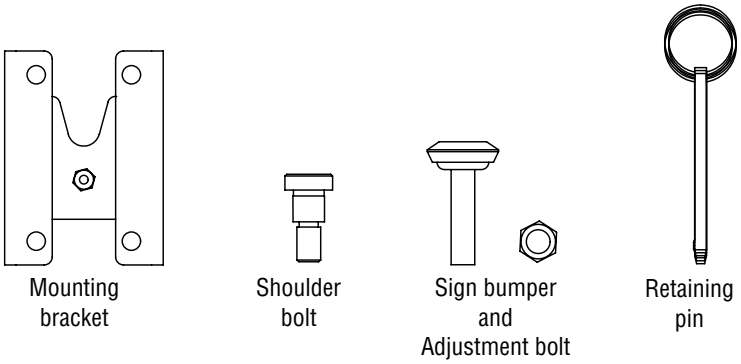
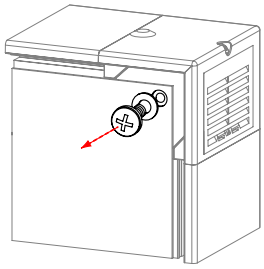


Figure 9: Parts for mounting signs

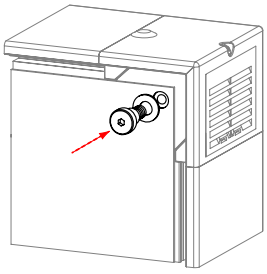


Attach mounting bolts to back of sign

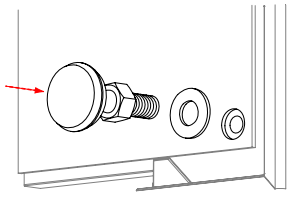
1. Remove the screw from each of the four corners.



2. Attach a shoulder bolt (provided) into each of the top corners



3. Attach a sign bumper and adjustment bolt (provided) into each of the bottom corners.



Mounting a sign on a wall

Figure 10: Flush mounting Box Office or directional signs

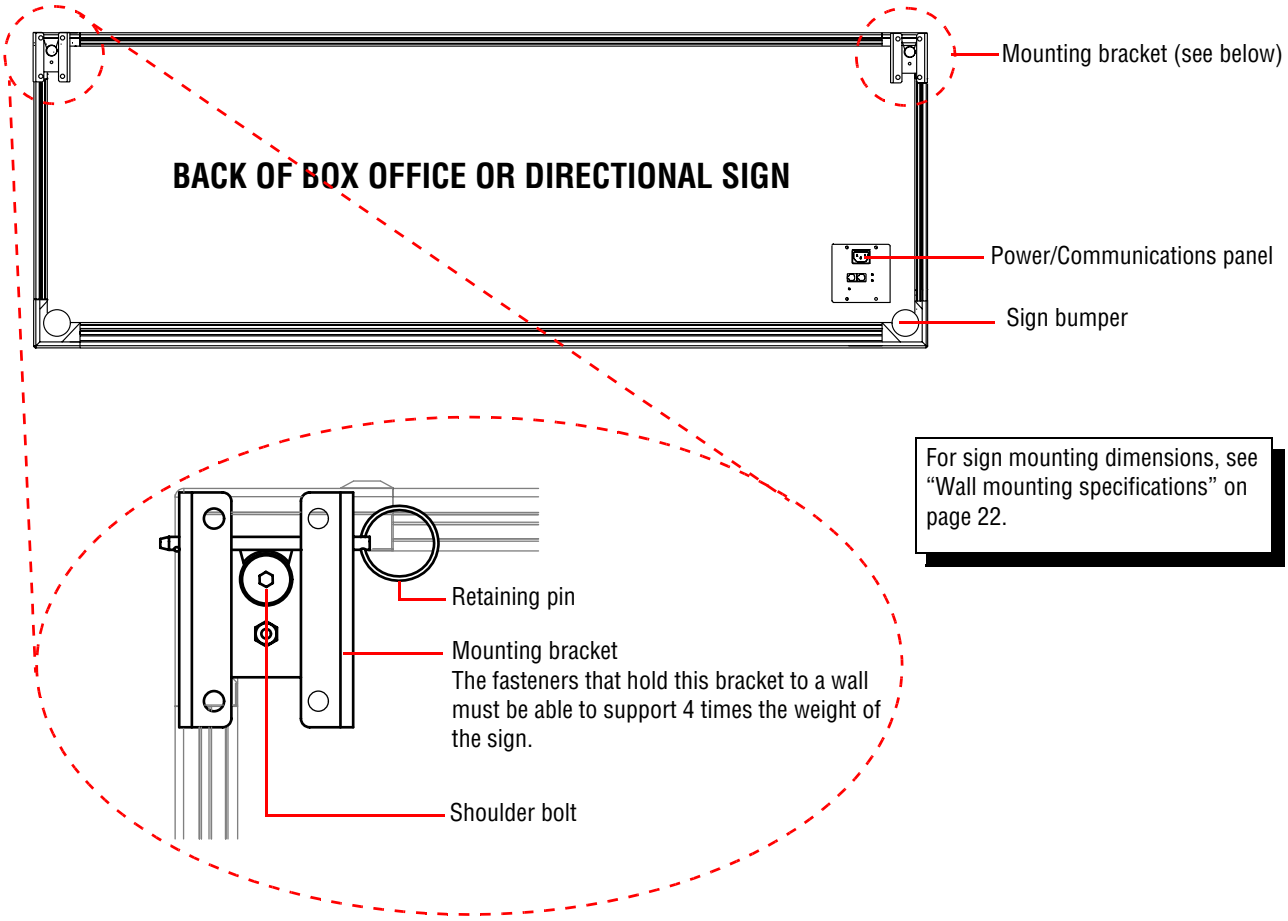
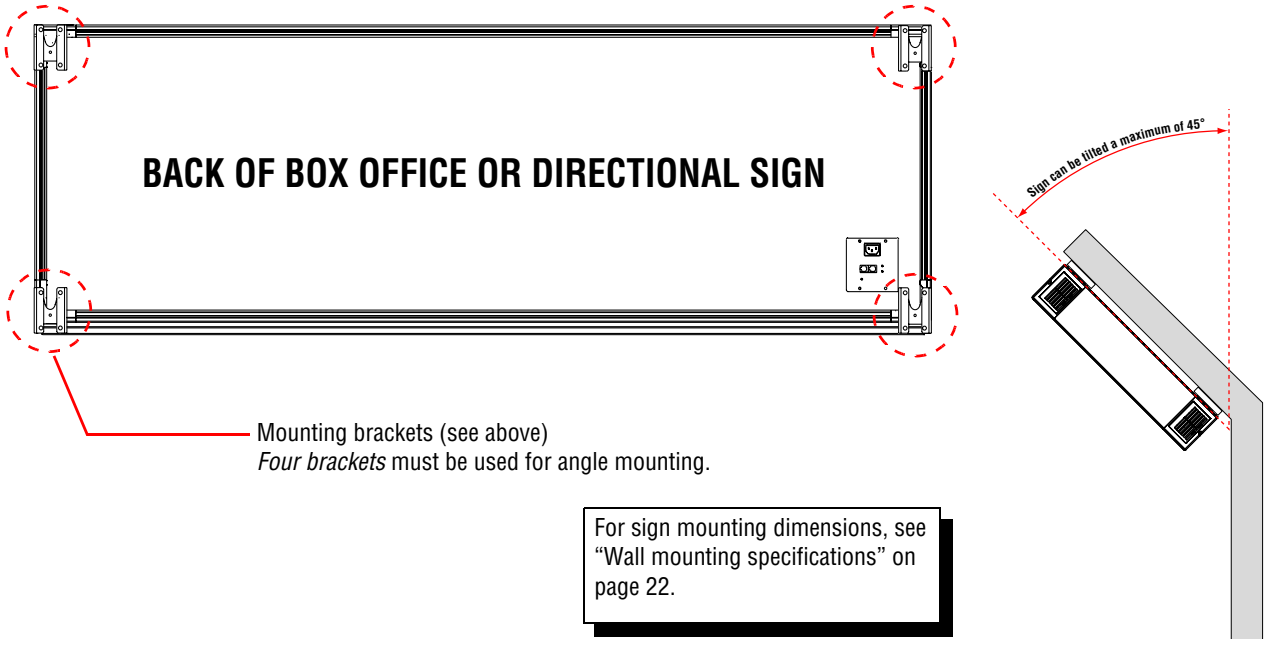


Figure 11: Angle mounting Box Office or directional signs



Mounting a light box

A light box is used to display a Mylar transparency image. The HEIGHT and WIDTH of this image depends on the size of the light box used.

A light box is typically placed directly under a Box Office or Lobby Directional sign.

Figure 12: Light box mounting considerations

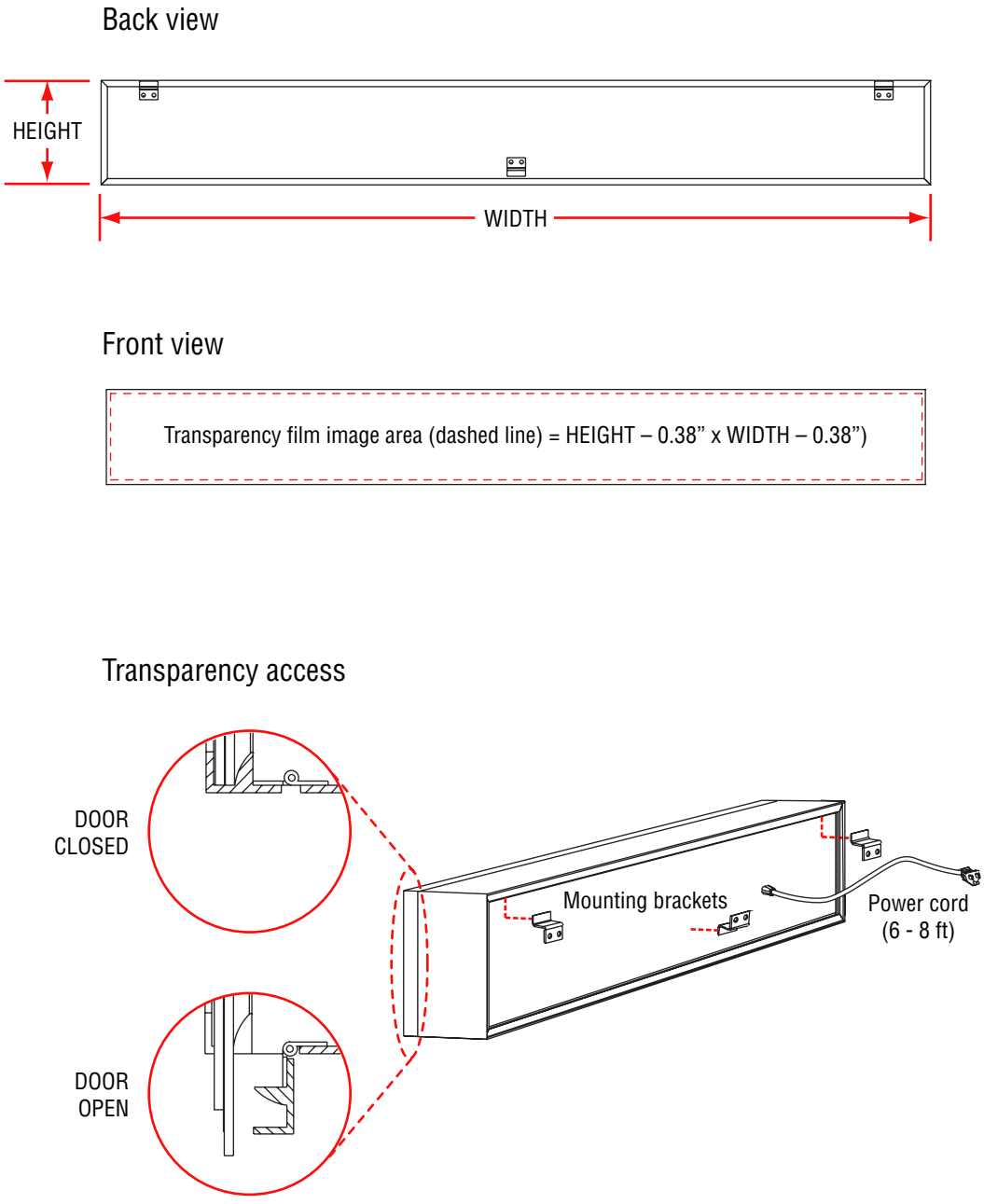
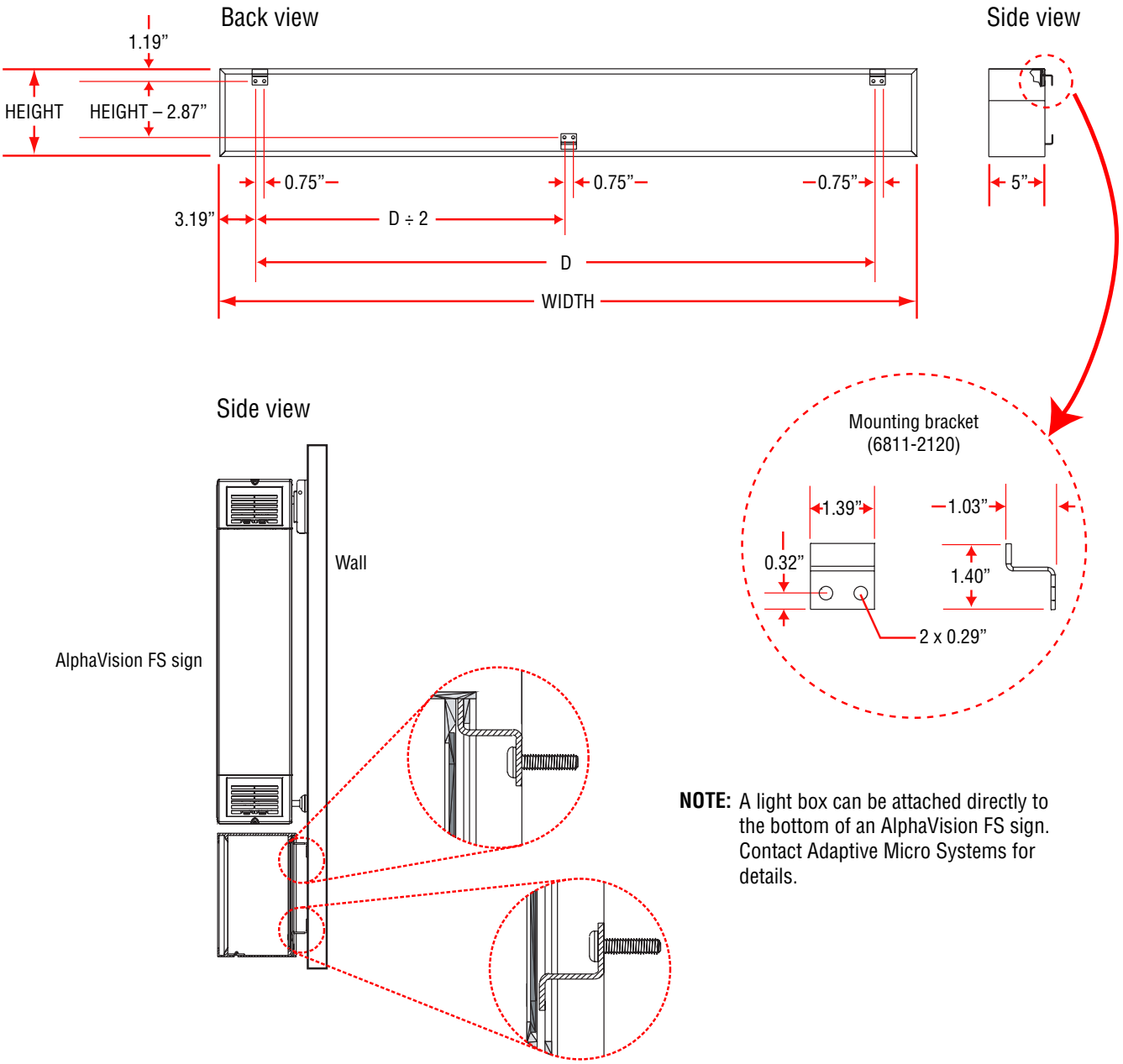


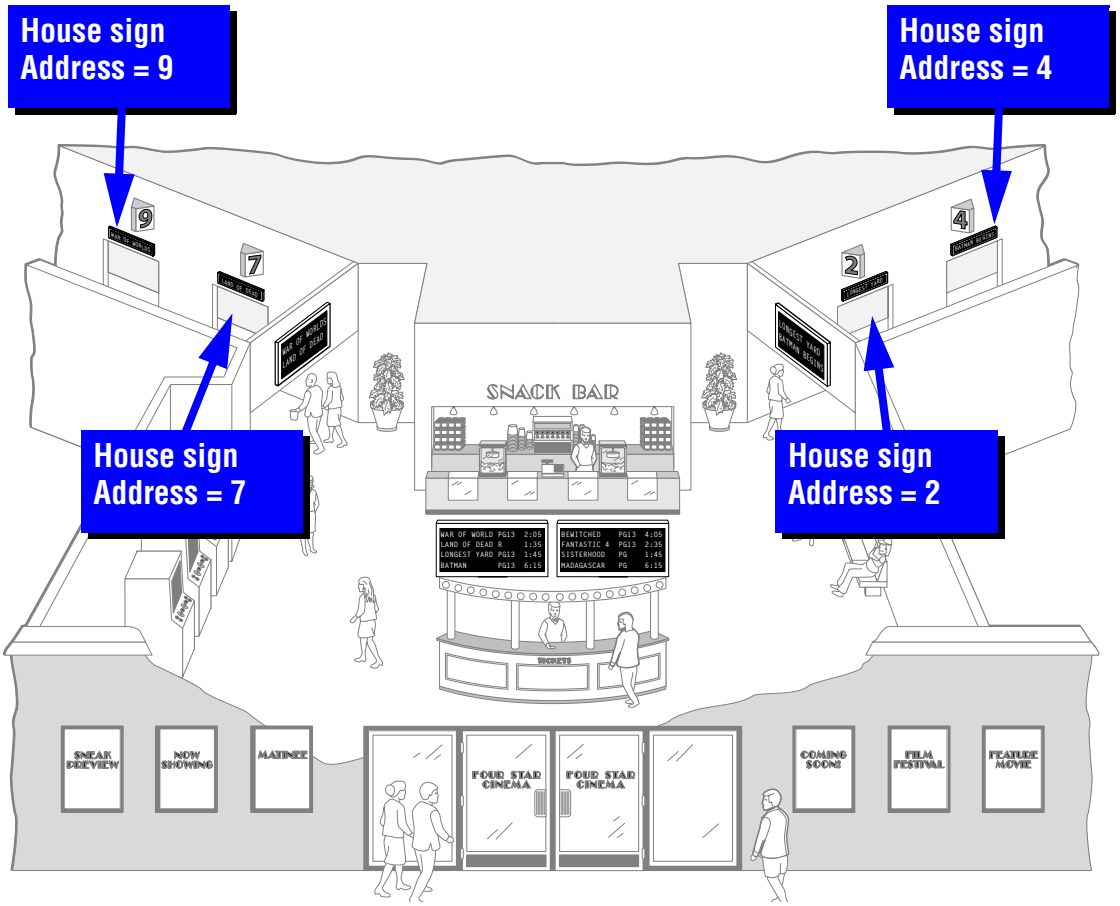
Figure 13: Mounting light boxes



NOTE: A light box can be attached directly to the bottom of an AlphaVision FS sign. Contact Adaptive Micro Systems for details.

Addressing and hanging house signs

Overview



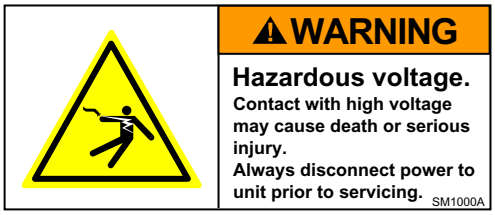
The following topics are covered in this section:

Setting house sign addresses

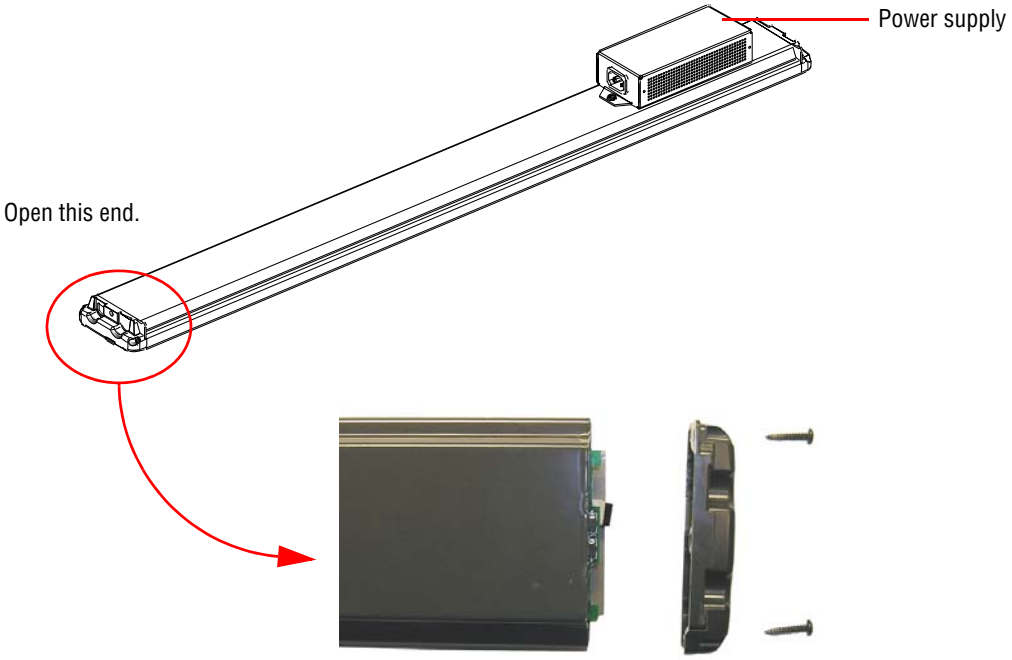
These instructions apply to the ALPHA™ 220C series signs. Addresses for ALPHA™ 4000 and 7000 series signs are set via the hand held remote. Refer to “Related documentation” on page ii for applicable documentation.

Step 1: Open the sign:

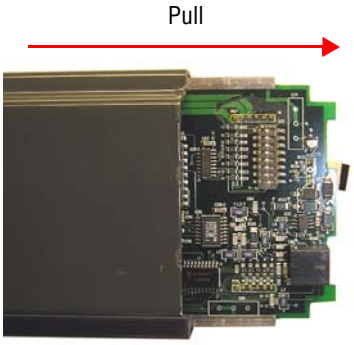
1. Remove power from the sign.



2. Unscrew the cap from the end of the sign furthest from the power supply.

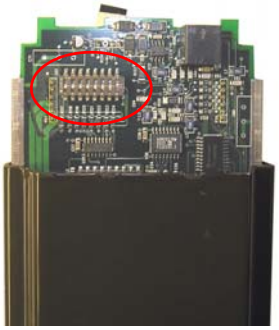


3. Gently pull the sign’s circuit board out a few inches.

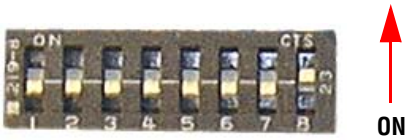


Step 2: Set the sign's DIP switches

1. Locate the sign's DIP switches:



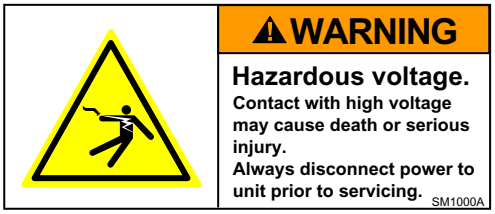
2. Set the sign's DIP switches as shown below:.



For this address . . .	Set these DIP switches . . .							
	1	2	3	4	5	6	7	8
1	**ON**	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	**ON**	OFF	OFF	OFF	OFF	OFF	OFF
3	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF
5	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF	OFF
6	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF
7	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	**ON**	OFF	OFF	OFF	OFF
9	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF	OFF
10	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF
11	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF
12	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF
13	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF
14	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF
15	**ON**	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	OFF
17	**ON**	OFF	OFF	OFF	**ON**	OFF	OFF	OFF
18	OFF	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF
19	**ON**	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF
20	OFF	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF
21	**ON**	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF
22	OFF	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF
23	**ON**	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF
24	OFF	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF
25	**ON**	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF
26	OFF	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF
27	**ON**	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF
28	OFF	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF
29	**ON**	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF
30	OFF	**ON**	**ON**	**ON**	**ON**	OFF	OFF	OFF

Mounting house signs

These instructions explain how to mount ALPHA 220C signs using the available trim kits. For information about mounting other types of signs, refer to the appropriate manual, see “Related documentation” on page ii.



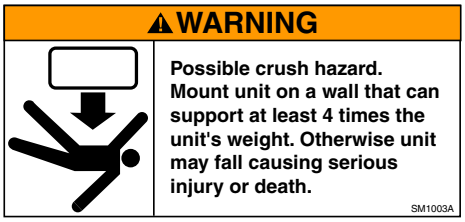


Figure 14: Ceiling mounting

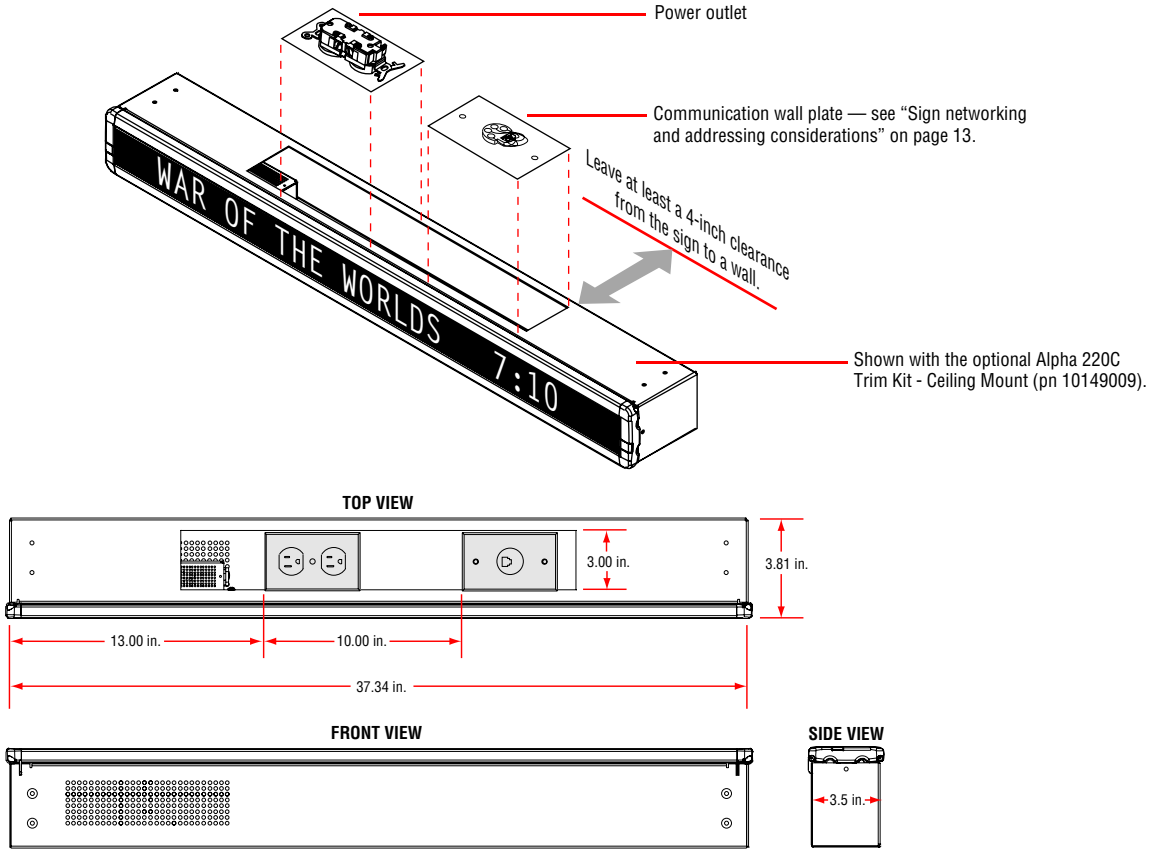
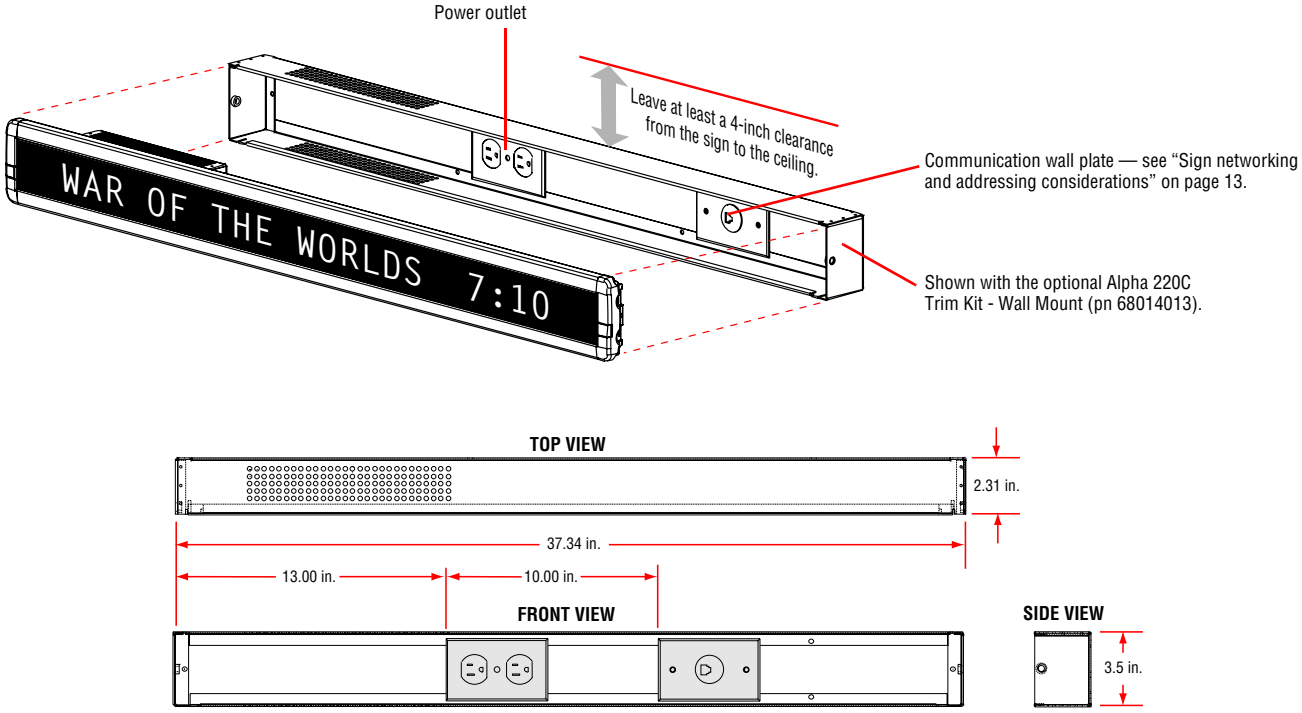


Figure 15: Wall mounting



Software and Installation Verification

Overview

In this section, you will be performing the final stage of the theater sign installation. This is where you will connect the computer to the signs and install and configure the software so you can begin sending messages.

The Simply Theater Signs (STS) software is used to communicate to the signs. This software was designed to make it easier for you to complete the installation and configuration in as quick a time as possible.

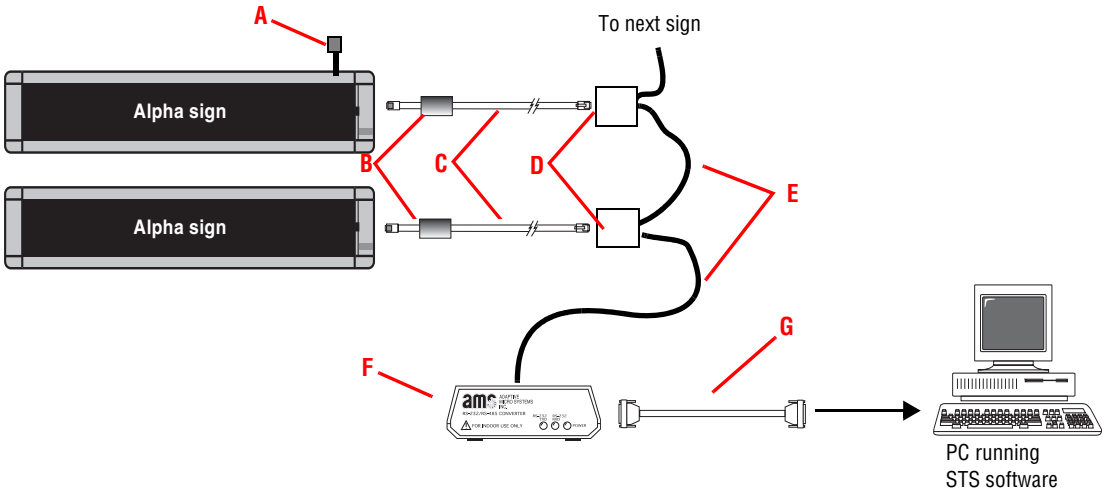
The steps required to complete the software installation include the following:

- Wiring the sign network to the computer, page 37
- Software, page 38
- Configuring STS, page 38
- Verifying the installation, page 43

Wiring the sign network to the computer

The following figure depicts an example of wiring the sign network to the computer running Simply Theater Signs. For more information, refer to “Networking Alpha Signs” (part number 97000112).

Figure 16: Example of sign network wiring to the STS workstation



Item	Part #	Description
A	1088-9107	End-of-line (EOL) terminator
B	—	Ferrite (ferrite end toward sign)
C	1088-8624	8-foot RS485 cable
	1086-8636	1-foot RS485 cable
D	4331-0602	Modular Network Adapter
E	1088-8002	1000-foot RS485 shielded plenum cable
	7122-0283	100-foot RS485 shielded plenum cable
	7122-0284	100-foot RS485 outdoor-rated shielded plenum cable
F	1088-1111	Converter Box III with a Converter Box III AC Adapter: pn 4011-1201 (120 volt) pn 4011-4201 (230 volt)
G	1088-8634	Type A9 RS232 cable (connects Converter Box III to PC RS232 port)

Software

Installing Simply Done Software

To install Simply Done Software, insert the CD-ROM into the drive and follow the prompts. If the CD-ROM does not automatically start, do the following:

1. Double-click the **My Computer** icon on the desktop.
2. Navigate to the CD-ROM drive (double-click the drive letter with the CD-ROM in it).
3. Double-click **setup.exe** and follow the prompts.

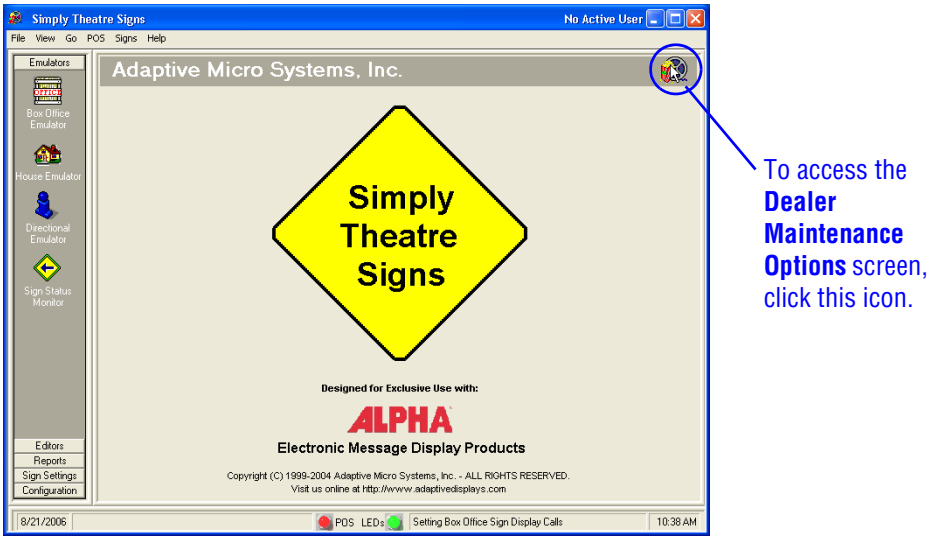
Configuring STS

This section only highlights some of the configuration settings. For more details on the complete configuration, refer to the online help.

To set the COM ports:

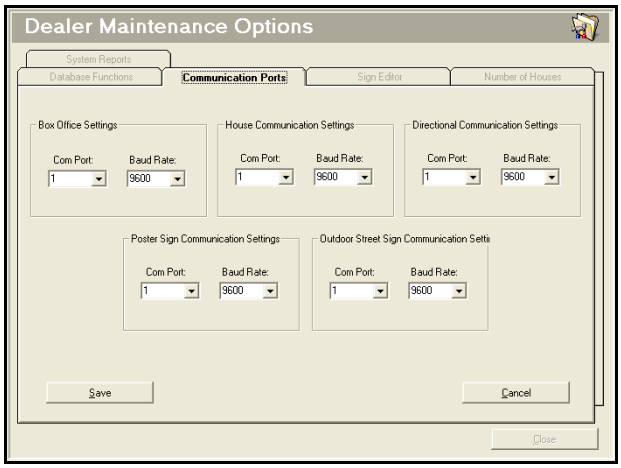
1. Access the **Dealer Maintenance Options** screen in Simply Theatre Signs.

Figure 17: Accessing the Dealer Maintenance Options screen.



2. Click the **Communication Ports** tab and then click the **Edit** button and make the appropriate changes.

Figure 18: Editing the communication ports.

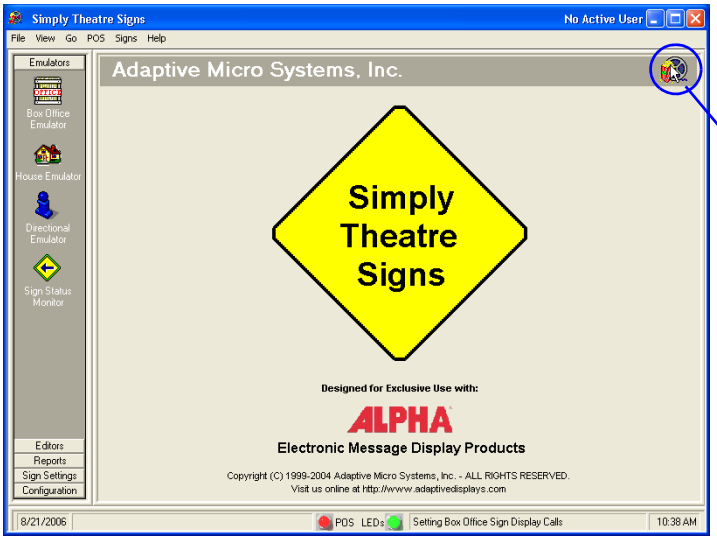


Set the communication port settings as they apply to your location.

To set the number of houses:

1. Access the **Dealer Maintenance Options** screen in Simply Theatre Signs.

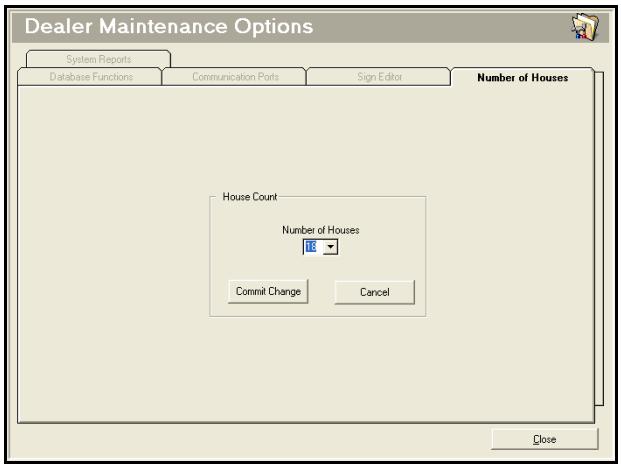
Figure 19: Accessing the Dealer Maintenance Options screen.



To access the **Dealer Maintenance Options** screen, click this icon.

2. Click the **Number of Houses** tab and then click the **Edit** button. Update the number of houses and click the **Commit Change** button when done.

Figure 20: Setting the number of houses.



Set the number of houses and

To configure the point of sale:

1. Access the **General Settings** screen.

Figure 21: Accessing the Configuration screen.

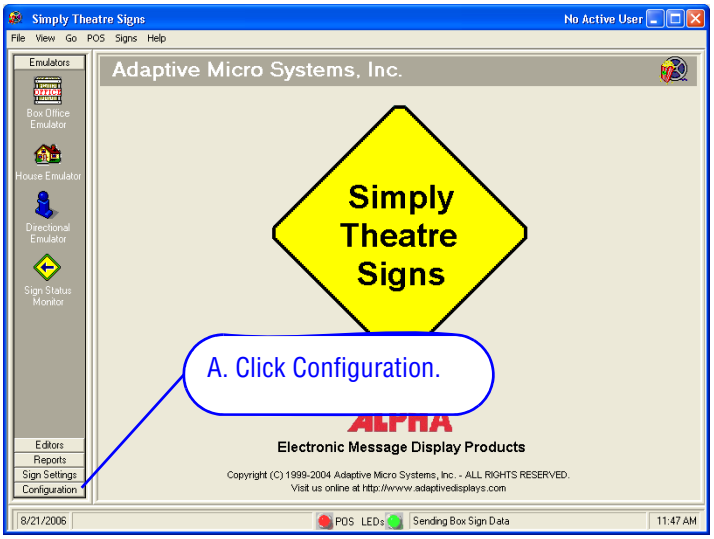
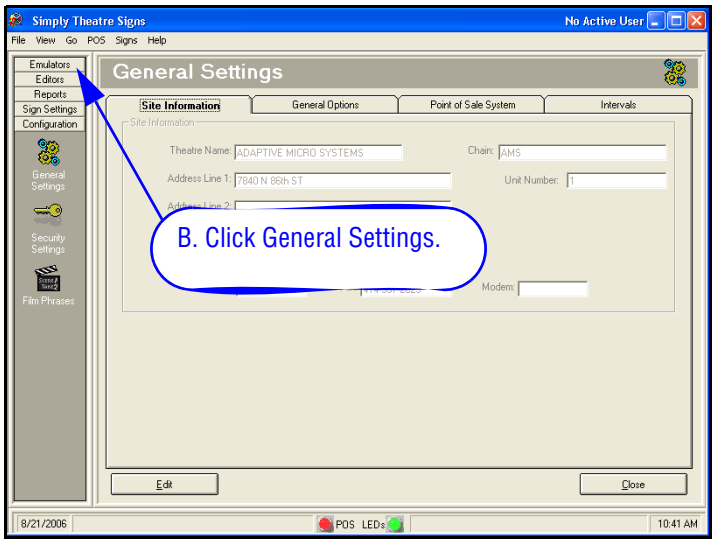
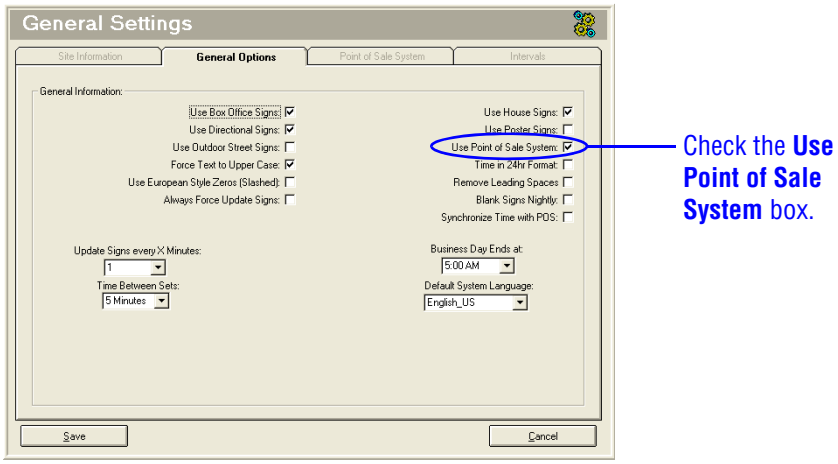


Figure 22: Accessing the General Settings screen.



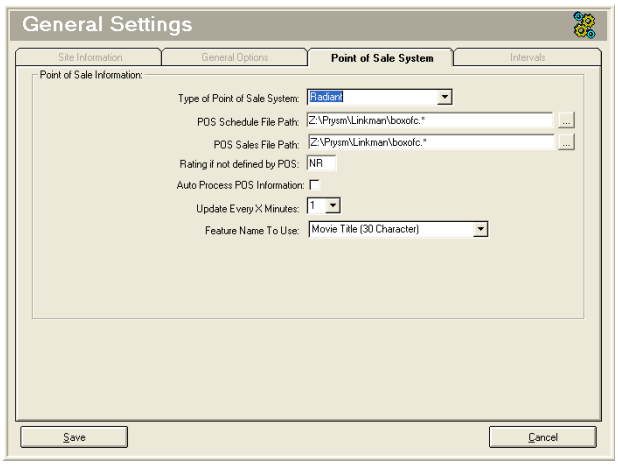
2. Click the General Options tab, click **Edit**, and check the **Use Point of Sale System** box.

Figure 23: Enabling the POS option.



3. Click the **Point of Sale System** tab and set the options as appropriate for the point of sale system used in your theater.

Figure 24: Configuring the point of sale system information.



Verifying the installation

Verifying house sign addresses

When the house signs first boot up, they will display their hex address. Verify this is correct based on the house number. Refer to “About addressing signs” on page 15 for more information.

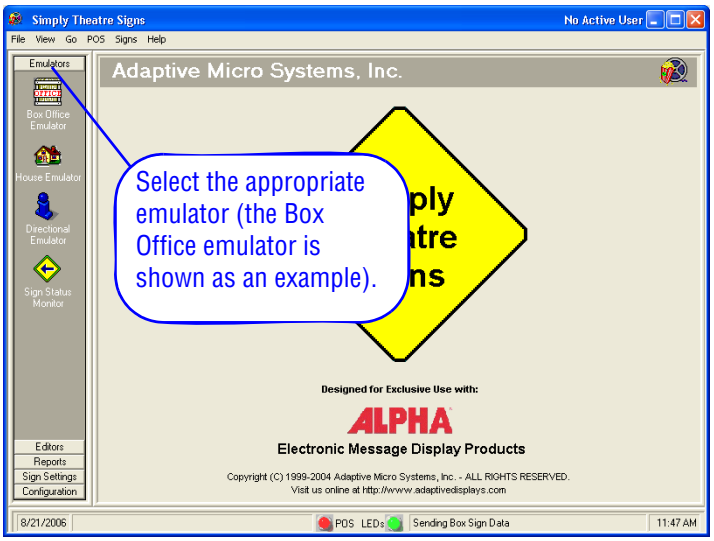
Rebooting the displays

These instructions apply to Box Office, directional, and outdoor signs because these signs must be reset in order to configure the memory and establish communications. This is done through the Simply Theatre Software.

To reboot Box Office, directional, and outdoor signs:

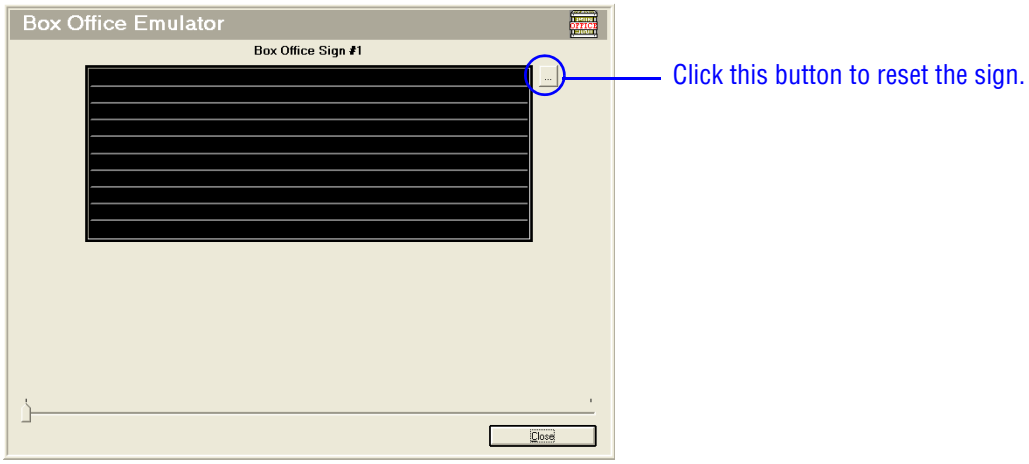
1. Open the appropriate emulator and click the e.

Figure 25: Opening the Box Office emulator.



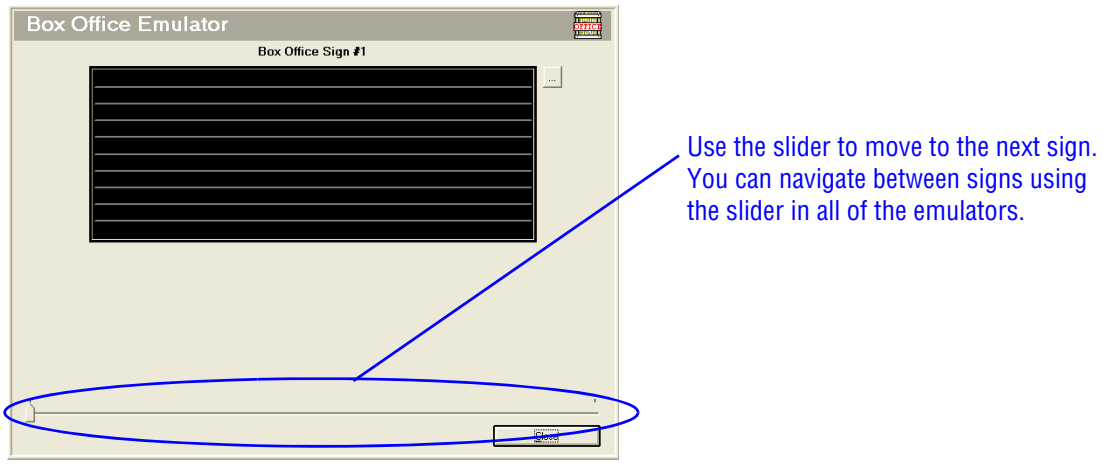
2. Click the ellipse button.

Figure 26: Box Office sign emulator.



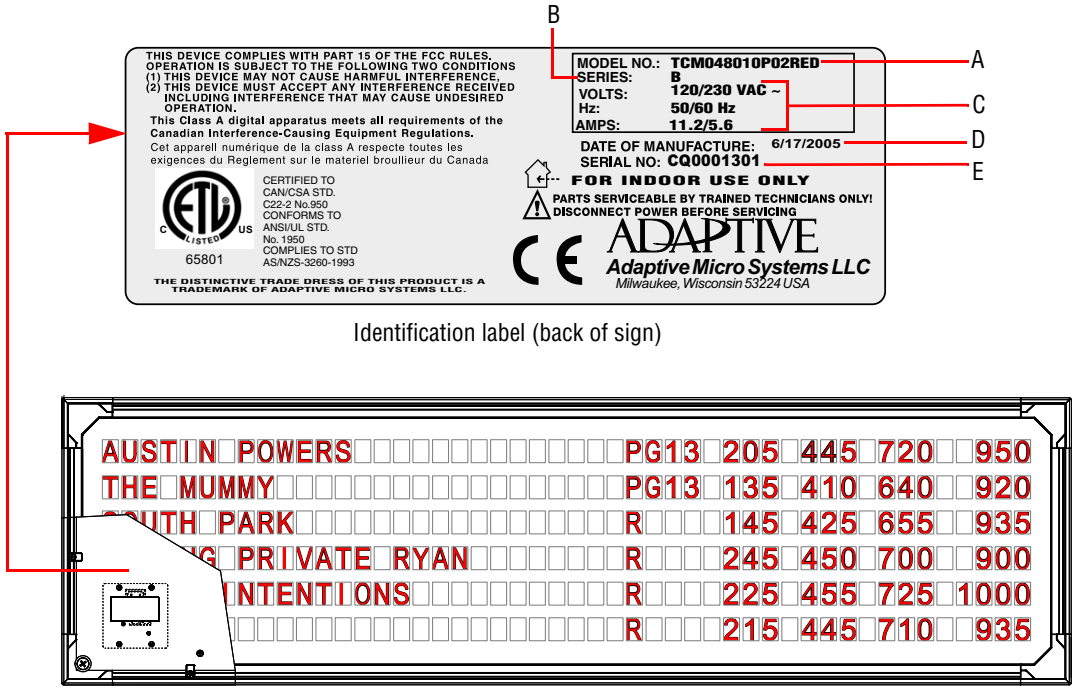
3. Wait approximately two (2) minutes for the sign to reset.
4. Move to the next sign or emulator and reset the next sign.

Figure 27: Moving to the next sign in the emulator.



Appendix

Sign identification



Identification label (back of sign)

Item	Name	Model number description
A	Model number	TCM048010P02RED LED color Pitch: P02=1.4" characters P03=2.1" characters Characters per line. Number of rows of characters Character matrix: CM None
B	Serial letter	Revision level of sign.
C	Electrical information	Input voltage, frequency, and amperage.
D	Date of manufacture	Month, day, and year the sign was made.
E	Serial number	Consecutive, unique identification number.

Converter Box

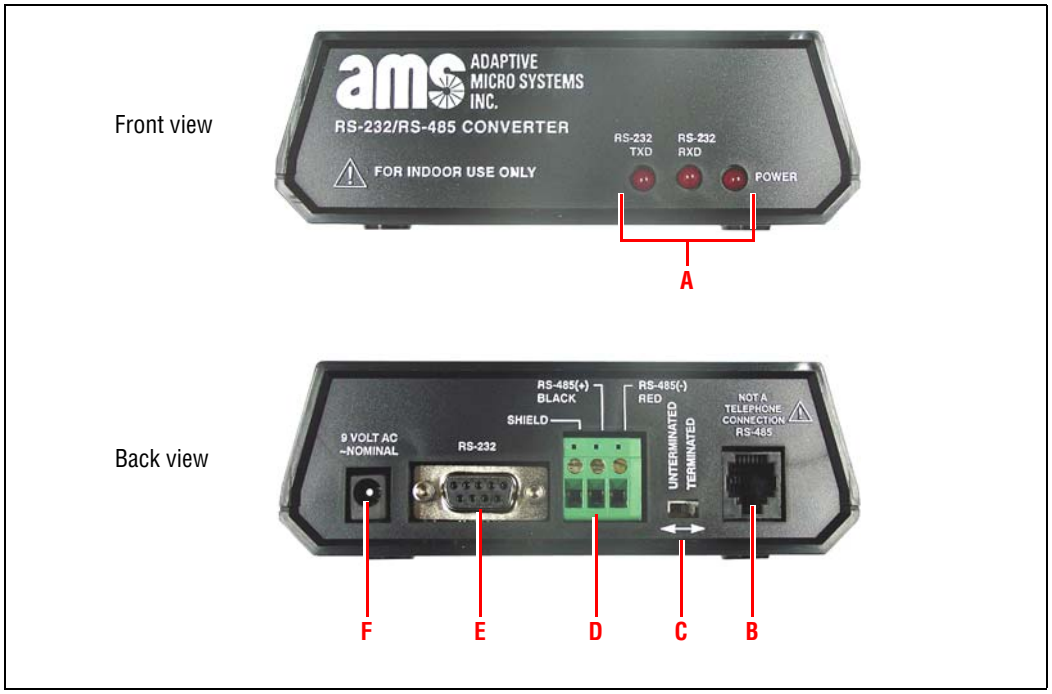


Table 3: Converter Box components

Item	Name	Description
A	*RS-232 TXD* indicator	Flashing = data being sent from the computer to the sign(s).
	RS-232 RXD indicator	Flashing = data being sent from the sign(s) to the computer.
	Power indicator	Lit = power is supplied to Converter Box.
B	RS-485 jack	Optional RS485 connection.
C	Termination switch	To turn Converter Box termination on, set switch to *TERMINATED.* To turn Converter Box termination off, set switch to *UNTERMINATED.*
D	RS485 connector	Used to network signs together.
E	*RS-232* connector	Connect to a computer's RS232 port.
F	DC power jack	Used to power the Converter Box.

RS485 data cable information

Two types of RS485 data cable are available from Adaptive:

- RS485 plenum cable (7124-0203) — indoor/outdoor cable. If this cable is used outdoors, it should be encased in a UV-protectant casing.
- RS485 non-plenum cable (7122-0203) — indoor cable.

Table 4: RS485 plenum cable (7124-0203)

Description	1/Pr. 24 AWG FFEP shielded cable, 100% aluminum Mylar and 95% tinned copper braid, 300V Type NEC/CMP LO-CAP (Belden 89841 equivalent)	
Conductor	AWG size and stranding:	24 AWG 7/32
	Material:	Tinned copper
Insulation	Material:	FFEP - Foam Fluorinated Ethylene Propylene
	Wall thickness:	0.020 inch
Color code		Black/Red
Assembly	Lay length:	2.0 inch L-H-L
	Binder:	None
	Shield #1:	Aluminum polyester foil shield. 100% coverage.
	Shield #2:	Tinned copper braid shield. 95% coverage.
	Drain:	24 AWG 7/32 strand tinned copper
Capacitance		12 pF/ft Nom.
Velocity of Propagation		81.6%
Impedance		120 ohms
DC resistance		27.7 ohms per 1000 ft @ 68°F
Jacket	Material:	FEP — Fluorinated Ethylene Propylene (Teflon®)
	Wall thickness:	0.015 inch
	Diameter:	0.176 inch Nom OD
	Color:	Red
	Temperature:	-70°C to 200°C
Cable weight		20.09 pounds/1000 ft
Markings	Type:	NEC CMP
	Legend:	As desired.

Table 5: RS485 non-plenum cable (7122-0203)

Description	1/Pr. 22 AWG FPE shielded cable, 100% aluminum Mylar and 95% tinned copper braid, 300V Type NEC/PLTC LO-CAP (Belden 3105A equivalent)	
Conductor	AWG size and stranding:	22 AWG 7/0.0096
	Material:	Tinned copper
Insulation	Material:	FPE - Foam Polyethylene
	Wall thickness:	0.020 inch
Color code		Black/Red
Assembly	Lay length:	2.5 inch L-H-L
	Binder:	None
	Shield #1:	Aluminum polyester foil shield. 100% coverage.
	Shield #2:	Tinned copper braid shield. 95% coverage.
	Drain:	24 AWG 7/32 strand tinned copper
Capacitance		11 pF/ft Nom.
Velocity of Propagation		79.1%
Impedance		120 ohms
DC resistance		17.5 ohms per 1000 ft @ 68°F
Jacket	Material:	PVC — Polyvinyl Chloride
	Wall thickness:	0.038 inch
	Diameter:	0.234 inch Nom OD
	Color:	Black
	Temperature:	105°C
Cable weight		33.34 pounds/1000 ft
Markings	Type:	NEC PLTC
	Legend:	As desired.

Adaptive Micro Systems Contact Information

Customer Service

Telephone:1-800-719-2838 or 1-414-357-2020, extension 274.

Technical Support

Technical support is offered twenty-four hours a day seven days a week.

Telephone: 1-414-357-2020 extension 519.

USA HEADQUARTERS

7840 North 86th Street

Milwaukee, WI

USA 53224

Tel: 414-357-2020

Fax: 414-357-2029

Email: sales@adaptivedisplays.com

EUROPE

25 rue Irene Joliot-Curie

38320 Eybens

France

Tel: +33 4 76 14 76 00

Fax: +33 4 76 14 75 70