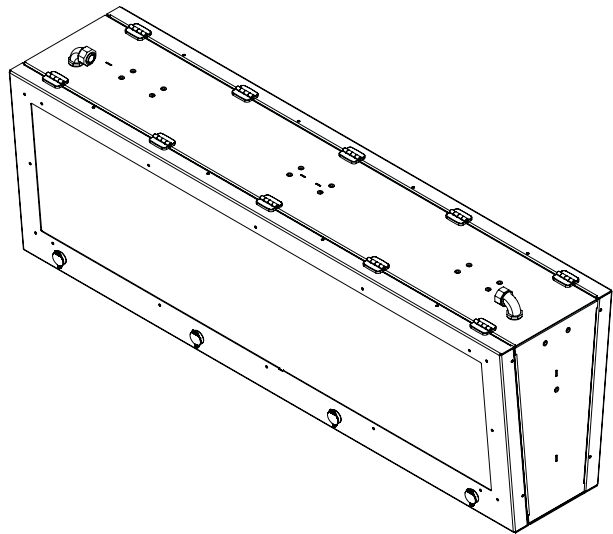
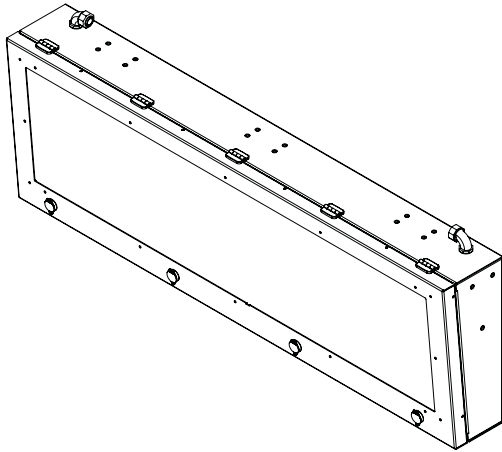


Installation and Maintenance Manual



Alpha Premier Information Display

© Copyright 2020 Adaptive Display Systems LLC. All rights reserved.

Adaptive Display Systems

7840 North 86th Street

Milwaukee, WI 53224 USA

414-357-2020

414-357-2029 (fax)

<http://www.adaptivedisplays.com>

Adaptive is a registered trademark of Adaptive Display Systems. Alpha Premier Information Display is a registered trademark of Adaptive Display Systems. All other brand and product names are trademarks or registered trademarks of their respective companies.

Your sign was shipped with an IP address of **10.11.11.254**.

Adaptive recommends logging the new IP address below.

New IP Address:

1	INTRODUCTION	
<hr/>		
Purpose		1-1
Revision history		1-1
Safety information		1-1
Equipment protection		1-2
Supplier's Declaration of Conformity		1-2
2	EQUIPMENT DESCRIPTION	
<hr/>		
Exterior views		2-1
Opening a sign		2-3
Interior views		2-5
Label locations		2-7
3	MECHANICAL INSTALLATION	
<hr/>		
Overview		3-1
Sign mounting guidelines and requirements		3-2
Environmental requirements		3-2
Ventilation requirements		3-3
Lifting the sign		3-4
Mounting the sign		3-5
Install the sun shield (optional)		3-7
4	ELECTRICAL INSTALLATION	
<hr/>		
Requirements for electrical installation		4-1
Earth-grounding signs		4-2
Lightning strike protection		4-2
Install power to the sign		4-3
5	NETWORKING	
<hr/>		
Connect to the messaging computer		5-1
6	Maintenance	
<hr/>		
Physical inspection		6-1
Front lens cleaning (outside of sign)		6-2
Turn off power		6-3
Replace the circuit breaker		6-4
Replace the surge suppressor		6-5
Replace the Ethernet device		6-6
Replace the Ethernet to fiber optic converter		6-7
Replace the light sensor assembly		6-8
Replace the 4.2VDC power supply		6-9
Replace the 5VDC power supply		6-10
Replace the display adapter board		6-11
Replace the sign controller		6-12
Replace the fan		6-13
Replace the display board		6-14

THIS PAGE INTENTIONALLY BLANK

■ Purpose

This manual explains how to mount and electrically connect an Alpha PID sign. It is intended for sign installers.

■ Revision history

Revision	Date	Notes
1260600601 Rev. A	November 3, 2020	First release.

■ Safety information

Equipment symbols



Chassis ground



Main power (I = ON, O = OFF)

Dangers, warnings, cautions, and notices

Dangers, Warnings, cautions, and notices are posted in appropriate locations throughout this manual.

■ Equipment protection

Preventing 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 Display System’s Tech Memo 00-0005, “*Preventing Electrostatic Discharge (ESD) Damage*,” available on our Web site at <http://www.Adaptivedisplays.com>.

EMI compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with installation guidelines, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Memory backup

In the event of power loss, a super capacitor in an Alpha PID sign provides power to the memory on the controller in order to save messages and time settings.

■ Supplier's Declaration of Conformity

47 2.1077 Compliance Information

Unique Identifier:

- 1260800101 - ALPHA PID-8RGB 48RX192C SF
- 1260800102 - ALPHA PID-8RPN 1260600601 REV. AGB 48RX192C DF

Party issuing Supplier's Declaration of Conformity

ADAPTIVE Micro Systems LLC
7840 N 86th Street
Milwaukee, WI 53224
USA
<http://www.adaptivedisplays.com/>

Responsible Party - U.S. Contact Information

ADAPTIVE Micro Systems LLC
7840 N 86th Street
Milwaukee, WI 53224
USA
<http://www.adaptivedisplays.com/>

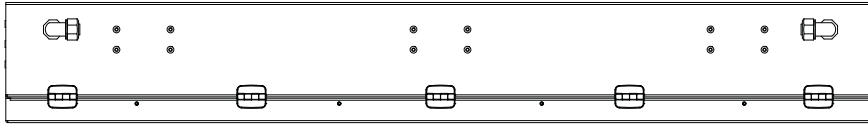
FCC Compliance Statement (for products subject to Part 15)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

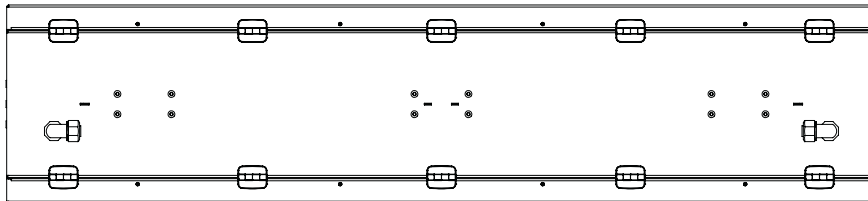
Thomas Mandler
Adaptive's FCC Compliance Officer
(6/9/2020)

■ Exterior views Top Power / Data Entry

Top view



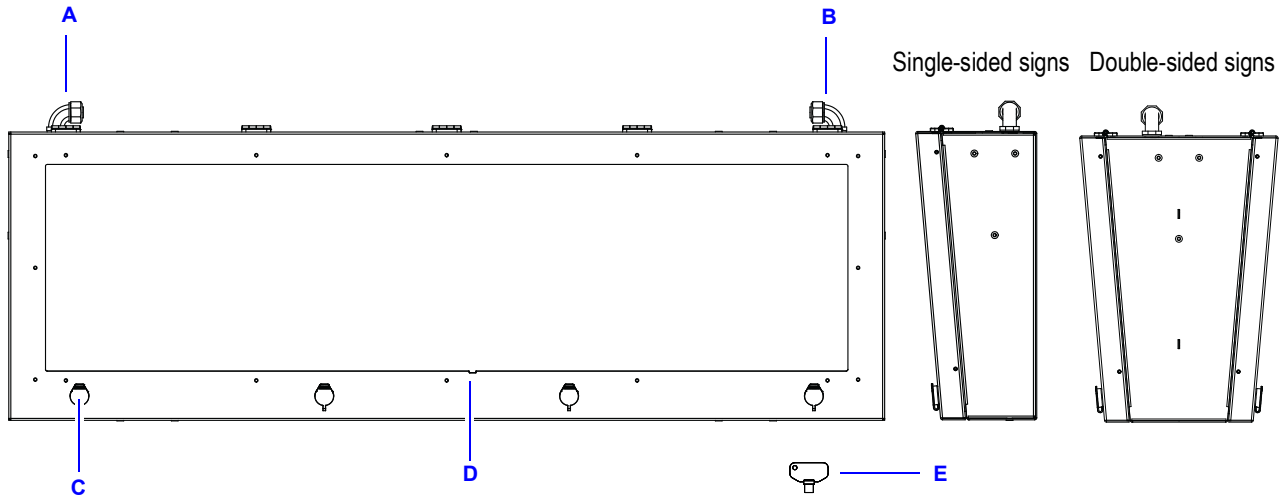
Single-sided signs



Double-sided signs

Front and side views

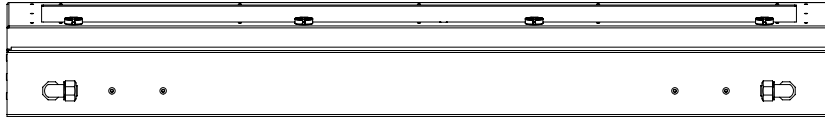
All sizes are similar.



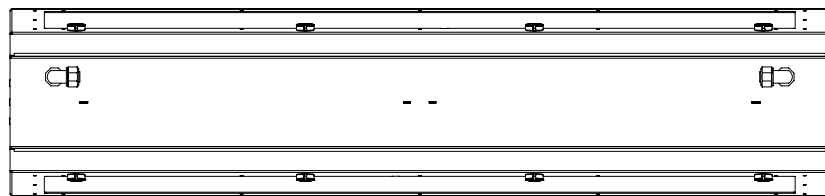
Item	Name	Description
A	POWER ENTRY	Entry point for power wiring
B	COMMUNICATION ENTRY	Entry point for communication cables
C	TAMPER PROOF DOOR LATCH	Water-tight latch covers keyhole
D	LIGHT SENSOR LOCATION	Monitors ambient light and adjusts sign brightness accordingly
E	LATCH KEY	Opens the door latches

■ Exterior views Bottom Power / Data Entry

Bottom view



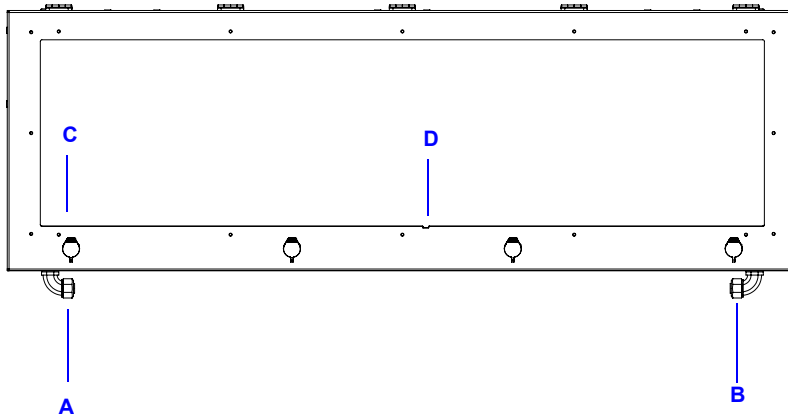
Single-sided signs



Double-sided signs

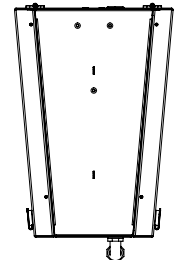
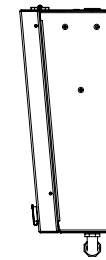
Front and side views

All sizes are similar.



Single-sided signs

Double-sided signs



Item	Name	Description
A	POWER ENTRY	Entry point for power wiring
B	COMMUNICATION ENTRY	Entry point for communication cables
C	TAMPER PROOF DOOR LATCH	Water-tight latch covers keyhole
D	LIGHT SENSOR LOCATION	Monitors ambient light and adjusts sign brightness accordingly
E	LATCH KEY	Opens the door latches

OPENING A SIGN

■ Opening a sign

Tools you will need

- Latch key
- #2 Phillips screwdriver

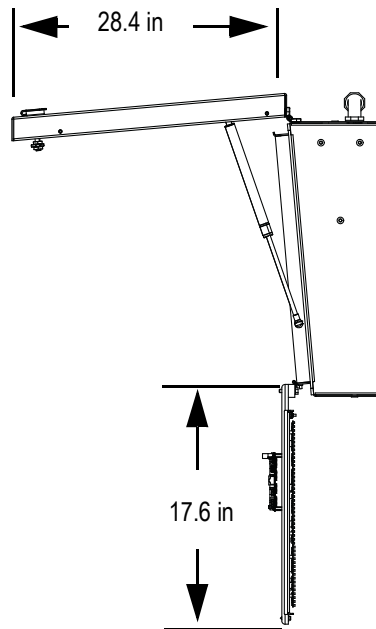
DANGER

Hazardous voltage. Contact with high voltage will cause death or serious injury. The power switches on the circuit breaker DO NOT turn off power to all lines in a sign. Remove power at the source.

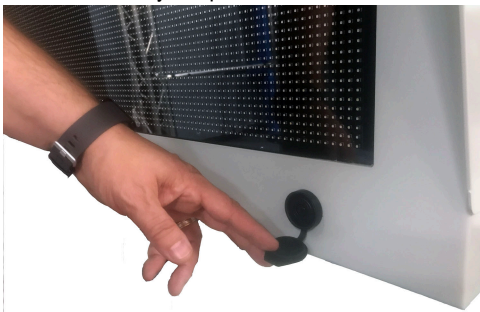
WARNING

Blunt Force Trauma. Sign door spring opens and could cause serious injury. Use one hand to control the opening of the sign.

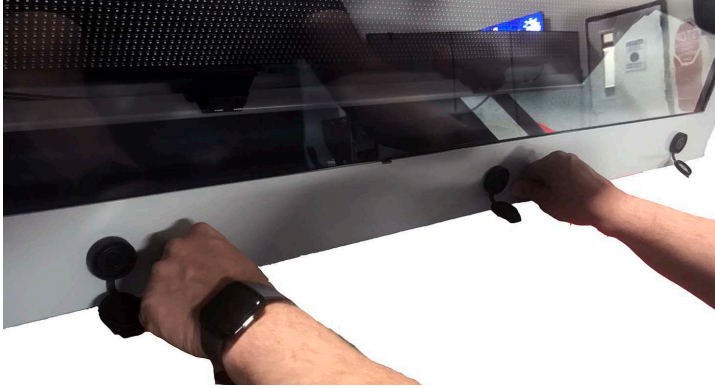
1. Be sure to allow enough space between you and the sign to fully open the sign.



2. Use the latch key to open all but one of the door latches on the front of the sign.



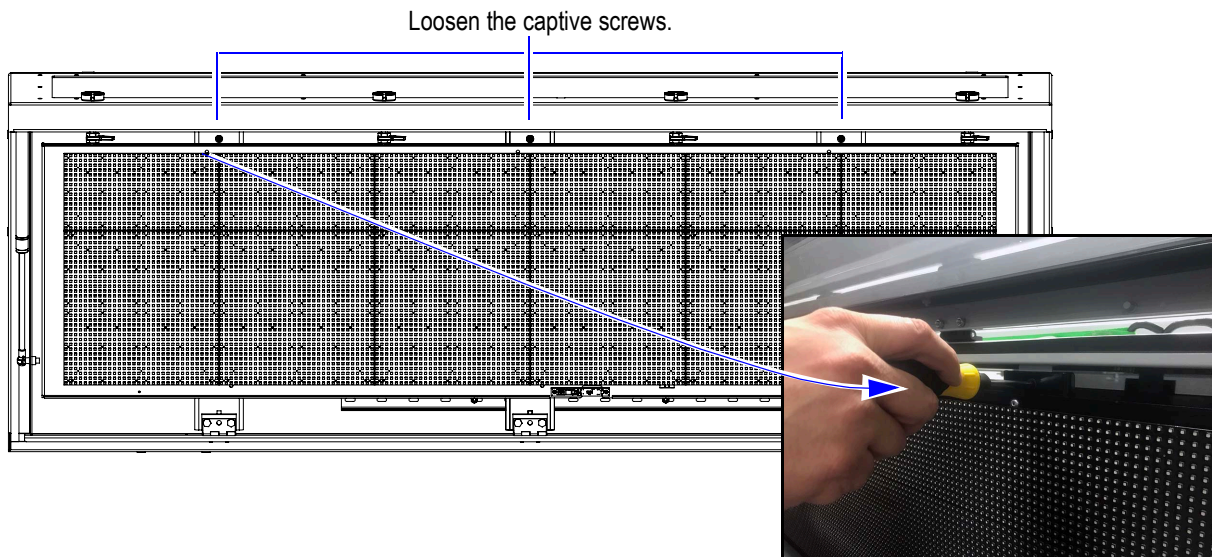
3. Before opening the last door latch, place one hand on the front of the sign case to control the force at which the sign opens.



4. Lower the display board rail. Locate the screws securing the inner display board panel. Use a #2 Phillips screwdriver to loosen the captive screws.

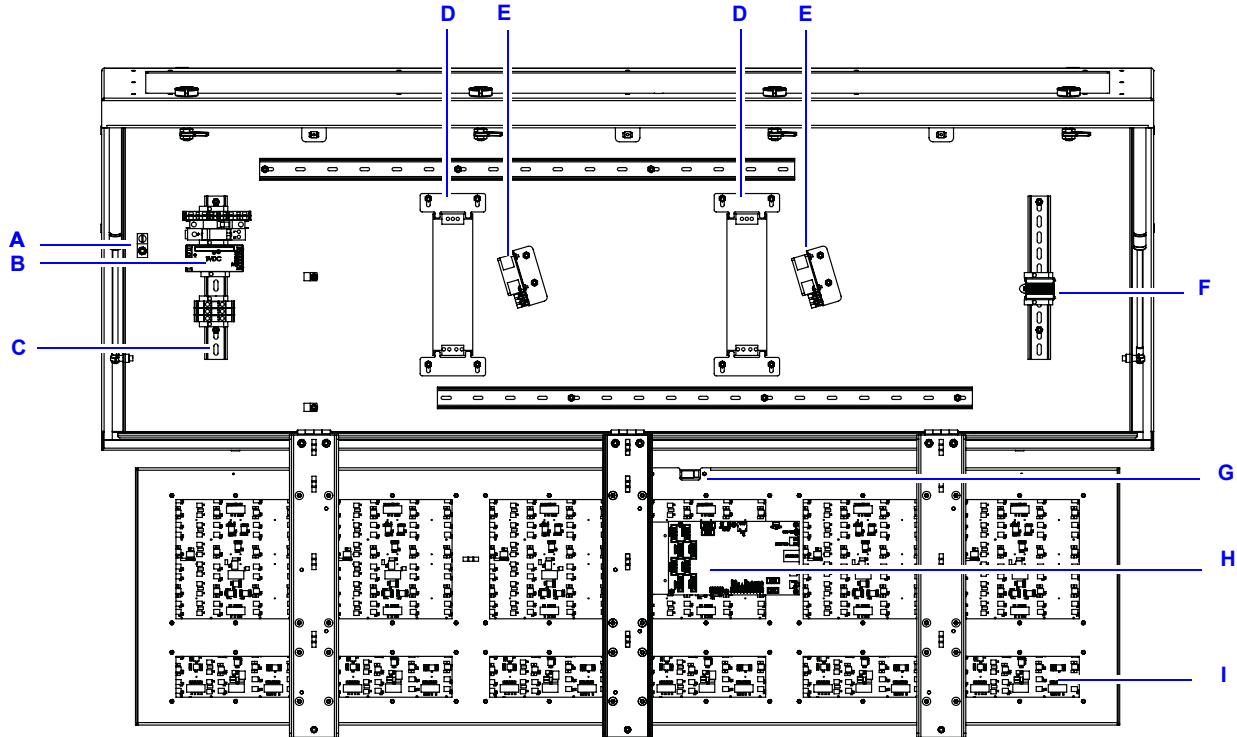
WARNING

Blunt Force Trauma. The inner display board panel will open out when the last screw is loosened. Use one hand to gently lower the panel.



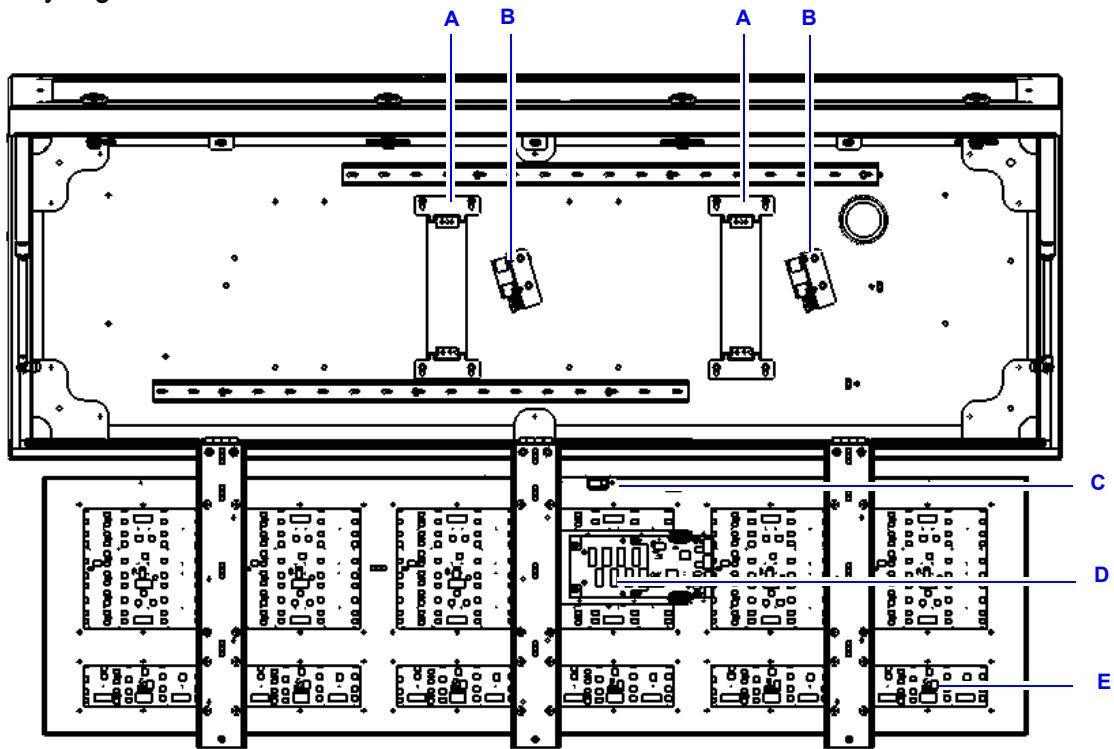
Interior views

Primary sign



Item	Name	Description
A	EARTH GROUND LUG	It is the end user's responsibility to make this connection to the sign in accordance to the National Electrical Code (NEC) Article 250 and local codes. This connection is mandatory to ensure compliance with Adaptive warranty.
B	5 VDC POWER SUPPLY	Supplies power to the controller, display adapter and fans
C	POWER RAIL	Contains the circuit breaker, customer AC connections, 5VDC power supply and surge suppressor
D	4.2VDC POWER SUPPLY	Supplies power to the display boards
E	CIRCULATING FAN	Circulates air within the sign to cool the components
F	COMMUNICATION RAIL	Connection to the messaging computer. Either Ethernet or fiber optic to Ethernet
G	LIGHT SENSOR	Monitors ambient light and adjusts the sign brightness accordingly
H	CONTROLLER PLATE	Contains the controller board
I	DISPLAY BOARD	Displays messages

Secondary sign



Item	Name	Description
A	4.2 VDC POWER SUPPLY	Supplies power to the display boards
B	CIRCULATING FAN	Circulates air within the sign to cool the components
C	LIGHT SENSOR	Monitors ambient light and adjusts the sign brightness accordingly
D	DISPLAY ADAPTER	Feeds video to the display boards
E	DISPLAY BOARD	Displays messages

Label locations

Sign rating label



Adaptive Micro Systems LLC
7840 N. 86th Street
Milwaukee, WI 53224 USA

SIGN MODEL#: ALPHA PID-8RGB 48RX192C SF _____ A



ALPHA PID-8RGB 48RX192C SF

S/N: LW00002014 _____ B



LW00002014

SERIES: A _____ C

VOLTS: 110-255VAC 50/60Hz _____ D

AMPS: XXX _____ D



PARTS SERVICEABLE BY TRAINED TECHNICIANS
ONLY! DISCONNECT POWER BEFORE SERVICING!

Label No. 1260600401, Rev A

Sign labels are located on three places on the sign:

- Outside: On the left side of sign when looking at the primary side of the sign.
- Inside: Next to the customer power connection.

Item	Name	Description
A	SIGN MODEL NUMBER	<p>PID-8RGB 48RX192C SF</p> <p>Primary or secondary sign</p> <p>Number of rows and columns in pixels</p> <p>LED lamp color:</p> <ul style="list-style-type: none"> • R = Red • A = Amber • RGB = Full color <p>Sign pitch</p> <p>PID sign</p>
B	SERIAL NUMBER	Consecutive, unique identification number for the sign
C	SERIES LETTER	Revision level of sign
D	ELECTRICAL INFORMATION	Input voltage, frequency, and total amperage of the sign "AMPS" = total sign amperage

■ Overview

The sign must be installed onto a super-structure designed to withstand live loads and comply with all national and local codes. Live loads include loading from wind and seismic events. Because every sign installation is unique, there is no single procedure for mounting.

WARNING

Sign must be supported (affixed to a super-structure able to withstand live loads and comply with all national and local codes) prior to servicing, otherwise the sign may tip, causing serious injury.

Structures defined

Super-structure: Customer or installer supplied structure to which the sign is mounted. Super-structures must be approved by a qualified structural engineer.

ID sign: Company name and/or logo sign supplied by the customer or installer. ID signs used in conjunction with Adaptive signs must not interfere with Adaptive's ventilation, electrical, and mounting requirements.

Super-structure design

The design of a sign's support structure depends on a number of factors: mounting methods, building codes, foundation, sign size, sign weight, sign height, wind loading, and seismic loading.

■ Sign mounting guidelines and requirements

Notice: Do not use the sign's ground-lug for grounding installation equipment such as welding equipment or the warranty will be void. Only the sign sub-structure may be welded. Welding any other part of the sign, will void the warranty.

The method used to mount signs varies greatly from location to location. The installer must ensure the installation complies with all national and local codes.

A qualified structural engineer must review the structure and attachment points to the super-structure. Sign installers must comply with the following Adaptive requirements or the sign warranty will be void:

- Any ID sign, fascia trim, or structure used above the sign must either have flashing or extend past the face of the sign.
- **DO NOT** allow water to pool / gather underneath or on top of the sign.
- **DO NOT** allow water from an above ID sign, fascia trim, flashing, or any other structure to drip directly onto the sign's door seams.
- **DO NOT** seal the sign in any way that restricts hot air from escaping the inside of the sign.
- Comply with all sign ventilation and clearance requirements. Refer to "Ventilation requirements" on page 3-3.

Notice: Do not alter the factory applied finish of the sign. Any modifications to the sign housing will void the warranty.

■ Environmental requirements

- Temperature is between -22 °F and 122° F (30°C -50°C).
- Non-condensing humidity does not exceed 95%.

■ Ventilation requirements

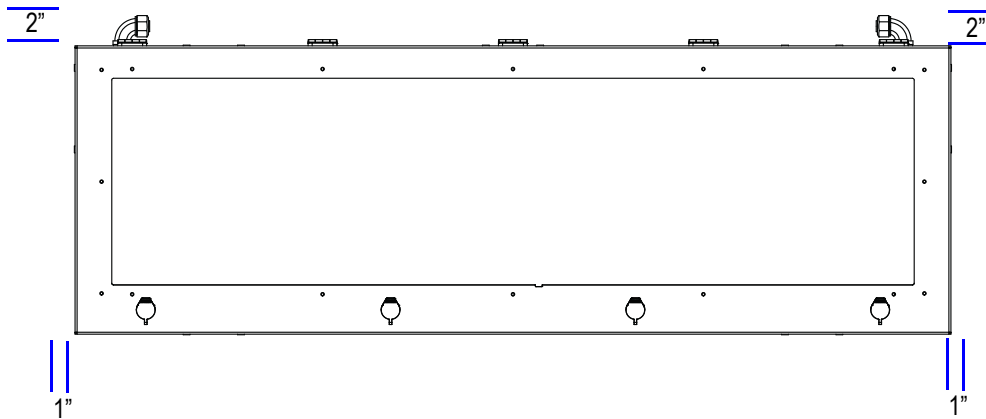
Notice: Inadequate ventilation will ultimately result in component failure that may not be covered under warranty.

Signs require obstruction-free space for adequate air ventilation between solid mounting surfaces and the top, bottom, and sides of the sign.

Always take into consideration other neighboring heat sources, such as back-lit signs, lighting sources, etc., and add additional ventilation when needed.

Note: Shading the back of single-sided signs will enhance thermal performance.

Minimum requirements



- 1 inch on each end of the sign case
- 2 inches above the sign case

■ Lifting the sign

WARNING

Crush hazard. Improperly lifting of a sign can create a crush hazard causing personal injury and damage to the sign. Do not use eyebolts to lift an assembled sign. They are designed to only lift a sign section from the shipping container. Lift the sign evenly and level, with no more than a 15 degree tilt.

Follow the OSHA guidelines for safe lifting when lifting or moving the PID sign. Refer to OSHA for the guidelines.

When lifting the sign into place:

- Make sure the equipment is suitable for the type of lifting and the weight of the sign.
- Support the sign evenly across the bottom, using equipment supplied by others.
- Move the sign into place before mounting. Then, use optionally supplied mounting kits to mount the sign.
- Take care to not damage the painted finish.

■ Mounting the sign

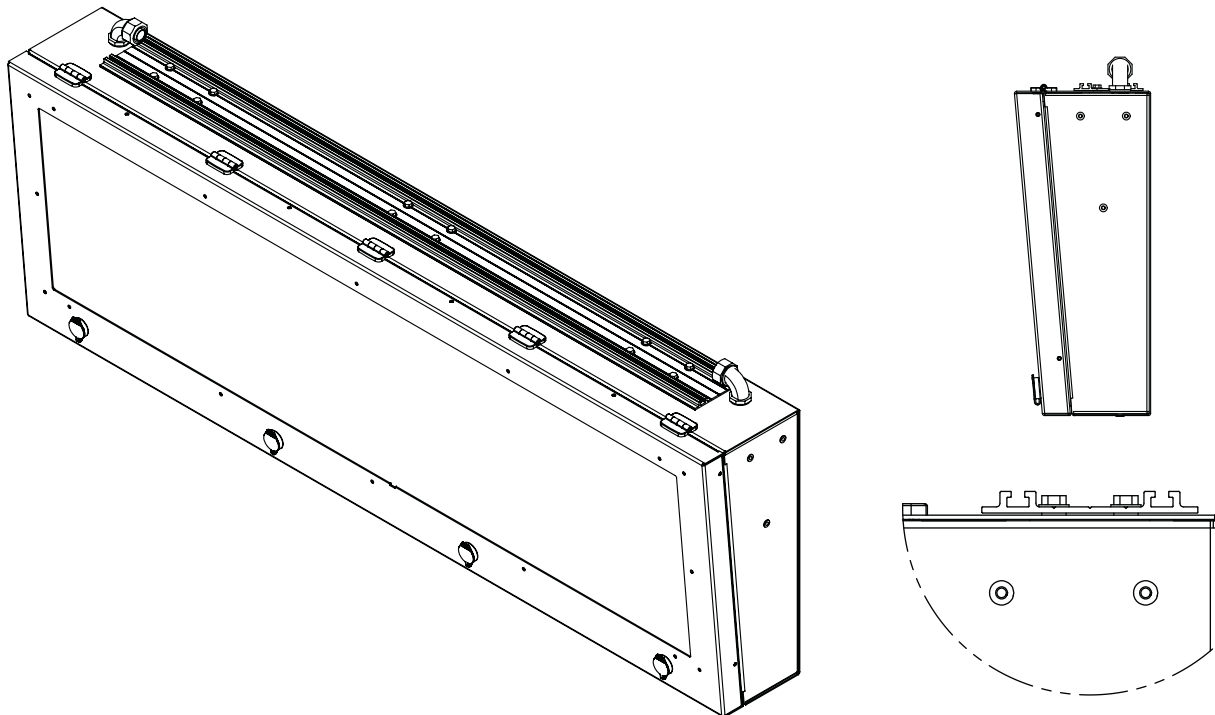
The methods used to mount a sign vary greatly. It is the installer's responsibility to ensure that the installation complies with all national and local codes.

Notice: Dissimilar metals must be isolated to avoid galvanic corrosion.

Any area on the sign's frame from which paint is removed during mounting, must be recoated with paint that is UL recognized to standard UL-1332, category DTOV2. Failure to repaint the area will result in accelerated corrosion of the sign's structure. Adaptive Displays is not responsible for any failure in the sign's structure because of accelerated corrosion. Failure to comply will void the sign's warranty.

T-slot ceiling mounting (optional)

The T-slots are factory installed. Field installation is not required.

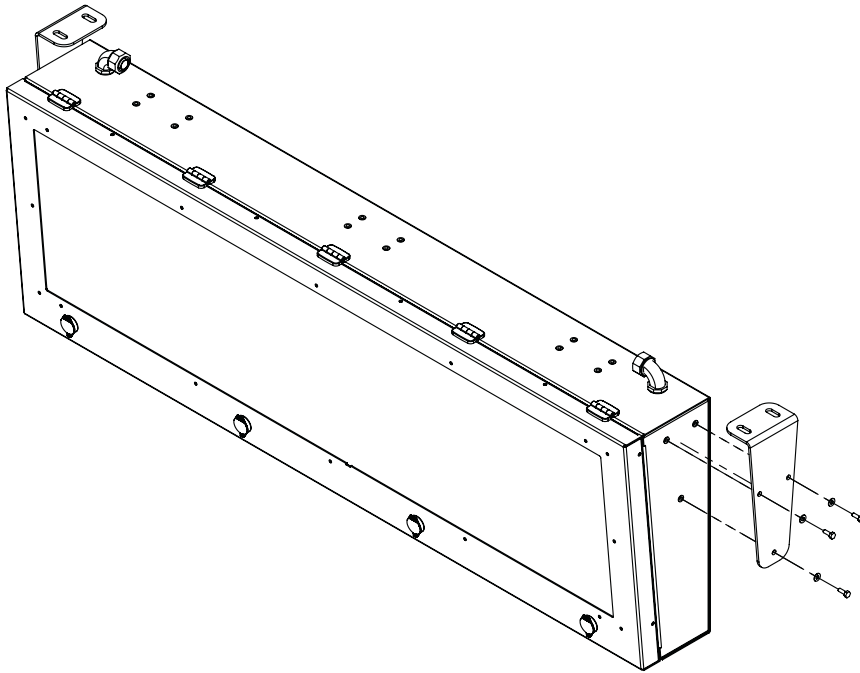


Bracket ceiling mounting (optional)

Tools you will need

- 7/16-inch socket or wrench

Install the brackets using the provided hardware as shown below.

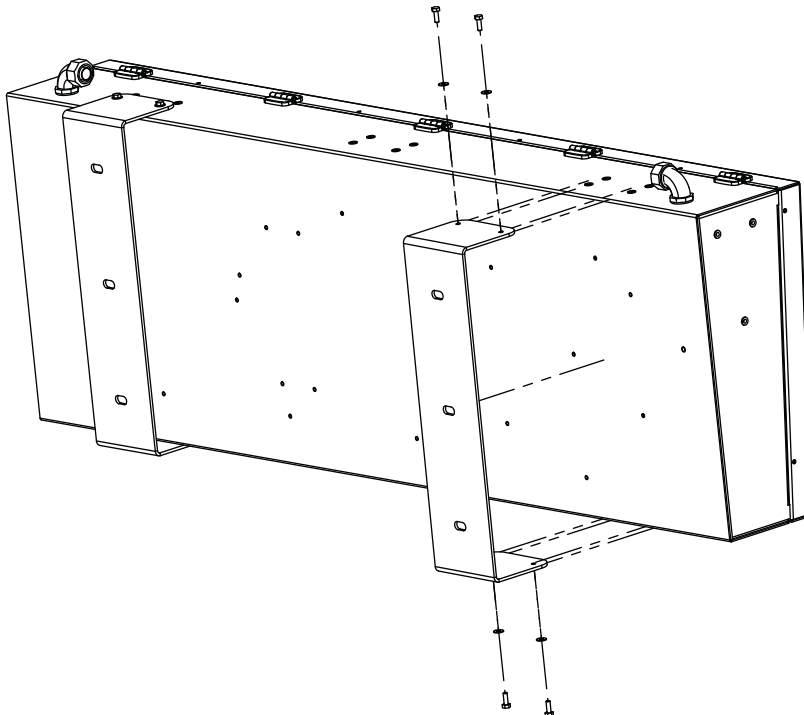


Wall mounting

Tools you will need

- 7/16-inch socket or wrench

Install the mounting brackets using the provided hardware as shown below.

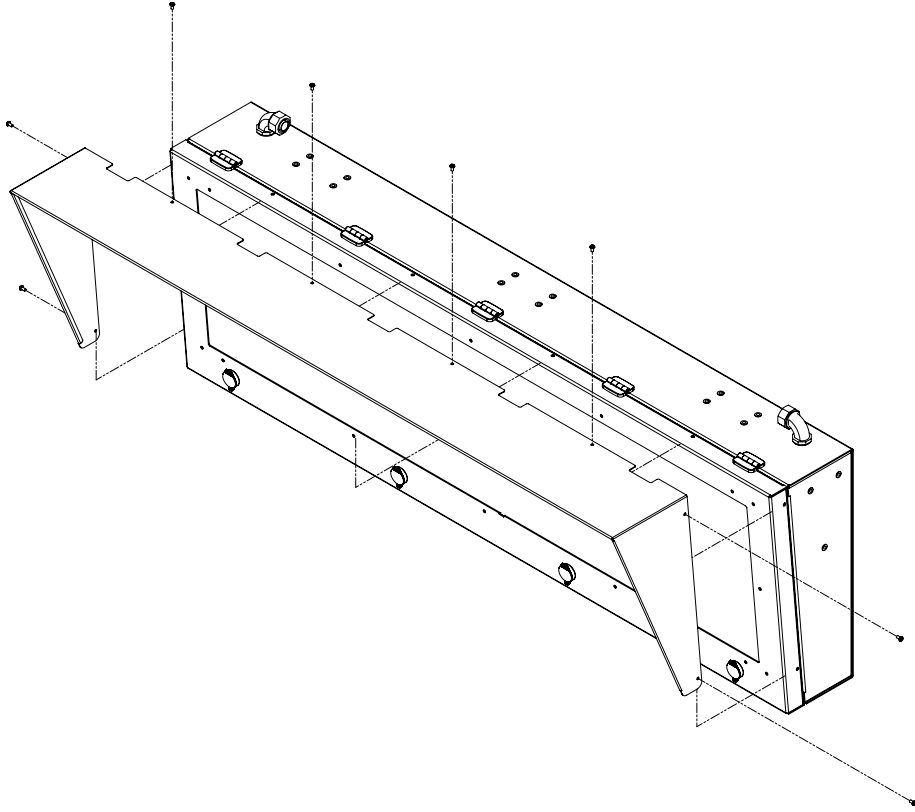


■ Install the sun shield (optional)

Tools you will need

- 7/16-inch socket or wrench

Install the sun shield using the supplied hardware as shown below.



THIS PAGE INTENTIONALLY BLANK

■ Requirements for electrical installation

DANGER

Hazardous voltage. Contact with high voltage will cause death or serious injury. The power switches on the circuit breaker DO NOT turn off power to all lines in a sign. Remove power at the source.

Notice: The following electrical installation requirements must be followed or the sign warranty will be voided. Electrical installation must only be attempted by a qualified electrician. Electrical connection must comply with all applicable national and local codes.

The electrical installation of signs varies greatly. The following bullet points are requirements. **It is the installer's responsibility to ensure that the installation complies with all national and local codes.**

- All power wiring **must** be from circuit breaker-protected lines.
- **DO NOT** connect the sign to a GFI-protected circuit.
- A disconnect device must be installed in the building wiring for the branch circuit(s) supplying the sign. For the power requirements for each sign, refer to the sign rating label located on front, back and interior of the sign.
- The sign **must** be properly grounded according to the applicable national and local electrical codes (for example, NEC Article 250 and 600, and IEEE 1100-1999).
- All electrical conduit connections **must** be watertight.
- Torque terminals to a minimum of 13 in/lbs (1.5 N/m) and a maximum of 16 in/lbs (1.8 N/m).
- Use minimum 80° C copper wire only.
- **DO NOT** drill additional holes in the sign.
- **DO NOT** route power and communication wires out of the door and around the side of the sign; the wires will be damaged when the door is closed.
- Separate conduits **must** be used for signal wires (for example, Ethernet) and for power wires. However, fiber optic wire may be run in the same conduit with power wires.

Power requirements

Adequate power must be run to the sign in accordance with the "Technical Specifications" on page A-1.

- Standard configuration is 120VAC. The sign may be configured as 240VAC as a custom order.
- The sign **must** be run on it's own dedicated circuit to ensure proper operation. This is particularly important when the sign is installed in a structure containing ballasts for fluorescent lamps. They **must** have their own circuit. Not complying with this requirement can lead to intermittent sign operation or malfunction.
 - **Do NOT** run power to the sign and the ballasts off the same circuit.
 - When ballasts are used in the same vicinity of the Adaptive sign, it is recommended that they be of the electronic low harmonic type to further reduce the risk of any interference with the sign.
 - Wire gauge and breakers must be sized or verified in accordance with Adaptive's input power specifications, the National Electric Code, and applicable local codes. **Under-sizing the wire gauge or breaker size can lead to intermittent sign operation or malfunction.**

Adaptive Explains

Is it necessary to run two conduits to a sign?

It is *not* always necessary. Two conduits are only necessary when communication wire, like CAT-5 wire, is run to a sign from a computer or from another sign. In these cases, one conduit would contain the sign's power wires and the other conduit the communication wires.

If power and communication wires are put in the same conduit, there is a chance the communication wires might pick up electrical interference from the power wires. For example, when a live power cord is placed next to a stereo speaker wire, the interference from this cord may cause the speaker to hum. In the case of a sign, this same effect could disrupt messages sent to the display.

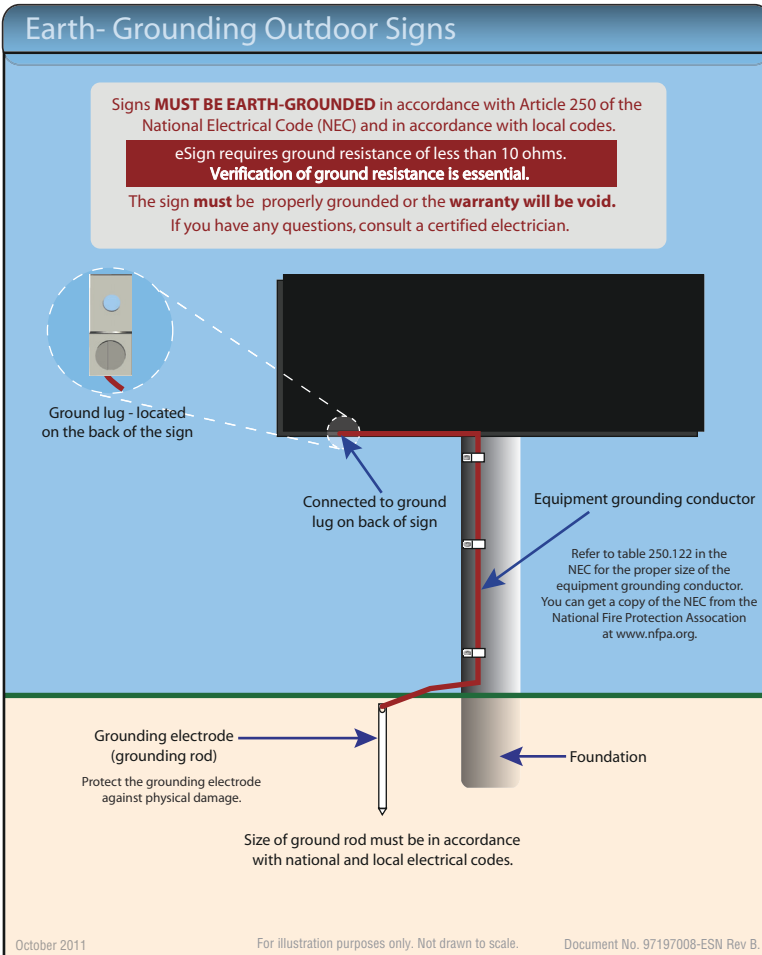
On the other hand, *fiber optic cable* and power wires can share the same conduit because fiber optic cable is immune to electrical interference.

■ Earth-grounding signs

Properly grounding each sign is necessary because it is an essential means of preventing shock, shock hazards, and potential fire hazards.

WARNING

Failure to properly ground the sign could result in elevated voltage from lightning entering the sign seeking a path to earth. The high voltage can result in electric shock, fires, and the destruction of the sign from lightning.



The following guidelines must be followed or the warranty will be void:

- Signs **must** be grounded in accordance with Article 250 of the National Electrical Code and in accordance with applicable local codes.
- **Do NOT** terminate the ground on metal poles or buildings. The metal will corrode, resulting in deteriorated grounding properties. Additionally, metal poles or buildings are often mounted on material that does not provide an effective ground.

Adaptive also recommends the following guidelines:

- Use copper-clad ground rods as the grounding electrode. They provide effective grounding for an indefinite period of time.
- Depending on the local soil conditions and codes, more than one ground rod may need to be installed.
- Since moisture becomes more stable at greater distances below the earth's surface, when possible, install the ground rod so that eight feet extend below the frost line to lessen the deviation in the system's resistance.
- Verify the grounding electrode conductor is securely attached at both ends.

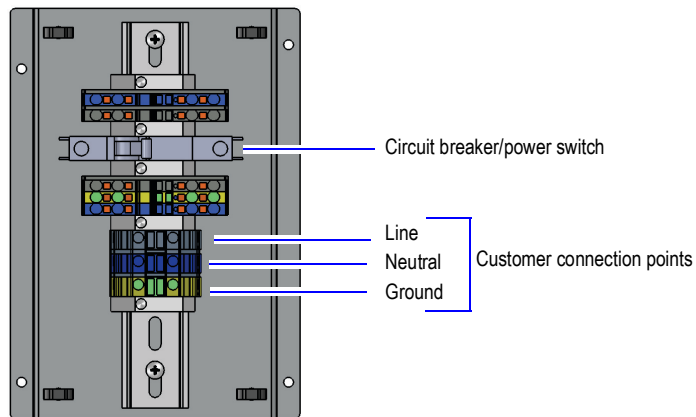
■ Lightning strike protection

A sign bonded to an earth ground has a means of dissipating the high voltage and current from a lightning strike. The resistance of the grounding electrode must be as low as possible. However, damage can still occur to a sign's electronic equipment from lightning voltage transients.

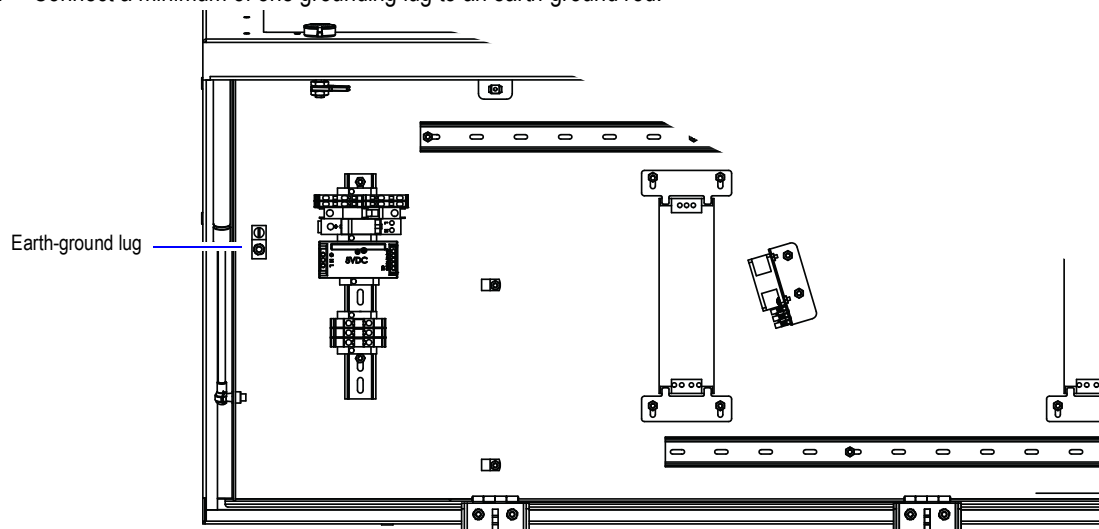
Though some surge protection is incorporated into a sign, to protect a sign from high-voltage lightning transients, surge protectors need to be installed in accordance with NEC Articles 280 and 285 and local codes.

■ Install power to the sign

1. Run power to the sign using weather-tight conduit.
2. Connect each power circuit to the appropriate wireway power terminal on the power plate.



3. Connect a minimum of one grounding lug to an earth-ground rod.



4. Place the circuit breaker switch in the ON position.
5. Close the sign door.

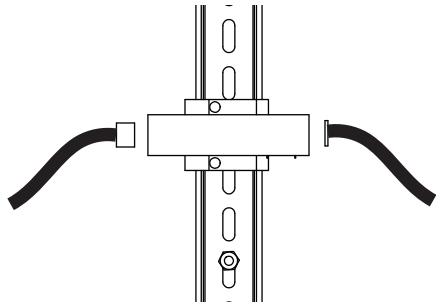
THIS PAGE INTENTIONALLY BLANK

■ Connect to the messaging computer

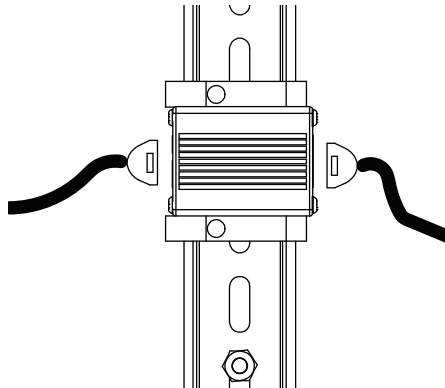
In order to display messages, a sign must be connected to a computer that is running AlphaNET software or other software compatible with the player installed on the controller. This computer is referred to as the messaging computer. The messaging computer is not supplied by Adaptive.

There are two ways to connect the messaging computer to an Alpha PID sign.

Ethernet to fiber optic



Ethernet



THIS PAGE INTENTIONALLY BLANK

Procedure	Page
Physical inspection	6-1
Front lens cleaning (outside of sign)	6-2
Turn off power.	6-3
Replace the circuit breaker.	6-4
Replace the surge suppressor.	6-5
Replace the Ethernet device.	6-6
Replace the Ethernet to fiber optic converter.	6-7
Replace the light sensor assembly.	6-8
Replace the 4.2VDC power supply.	6-9
Replace the 5VDC power supply.	6-10
Replace the display adapter board.	6-11
Replace the sign controller.	6-12
Replace the fan.	6-13
Replace the display board.	6-14

■ Physical inspection

A physical inspection of the sign's exterior and interior should be performed every 6 months.

Exterior inspection

- Check for any physical damage to the exterior of the sign.
- Check for loose nuts, bolts, hinges, doors, and so on.
- Check the exterior electronics for foreign debris and general cleanliness.
- Check the exterior of the sign for general cleanliness.
- Check the LEDs of the sign for general cleanliness and visibility.

Interior inspection

- Check for any physical damage to the interior of the sign.
- Check for loose nuts, bolts, hinges, doors, and so on.
- Check the interior electronics for foreign debris and general cleanliness.
- Check the interior of the sign for general cleanliness.
- Make sure all fans are operational.

FRONT LENS CLEANING (OUTSIDE OF SIGN)

■ Front lens cleaning (outside of sign)

Required materials

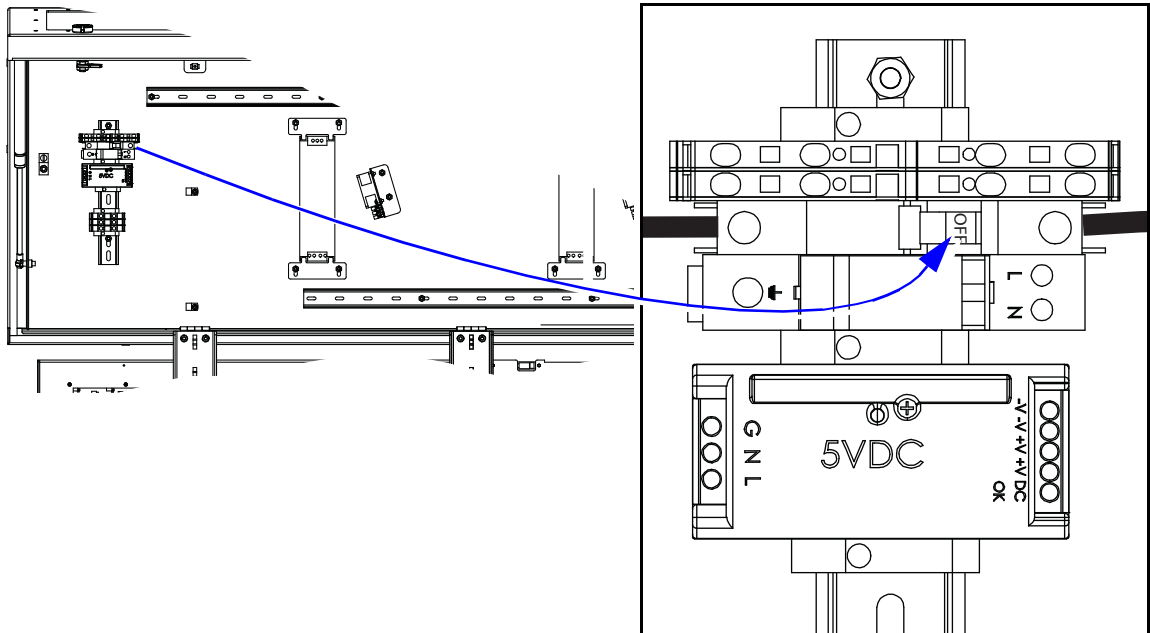
- Mild, nonabrasive liquid detergent or liquid glass cleaner.
Note: Do not use solvents. Use of solvents will damage the lens UV stabilizer.
- Soft cloth or soft paper towels.

Cleaning procedure

1. Spray the glass cleaner onto the front lens of the sign.
Notice: Do not clean the lens with a pressure washer. Damage to the sign resulting from the use of a pressure washer is not covered by the manufacturer's warranty.
2. Clean the sign's lens in a horizontal motion, starting from the top and progressing toward the bottom.

■ Turn off power

1. Open the sign.
2. Locate the circuit breaker. There is one circuit breaker in the sign. Position the switch to the OFF position.



REPLACE THE CIRCUIT BREAKER

■ Replace the circuit breaker

Tools you will need

- Phillips screwdriver
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
 2. Loosen the two screws on the circuit breaker. Disconnect the wires.



3. Pull the circuit breaker toward you and lightly twist it to pop it off of the rail.

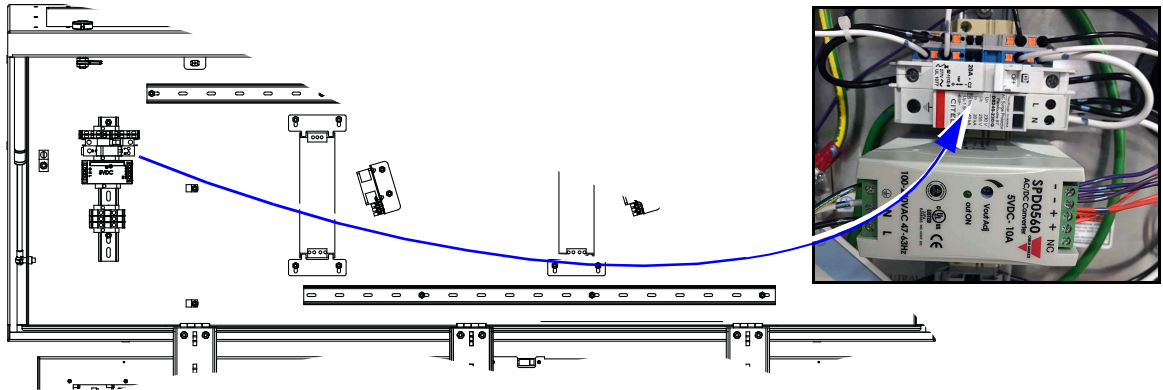
Install the replacement circuit breaker

1. Snap the replacement circuit breaker onto the rail.
2. Reconnect the wires and tighten the screws.
3. Position the circuit breaker switch to the ON position.
4. Close the sign.

■ Replace the surge suppressor

Tools you will need

- Phillips screwdriver
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
 2. Locate the surge suppressor. There is only one surge suppressor. It is located in the primary sign.



3. Loosen the two screws on the surge suppressor. Disconnect the wires.



4. Pull the surge suppressor toward you and lightly twist it to pop it off of the rail.

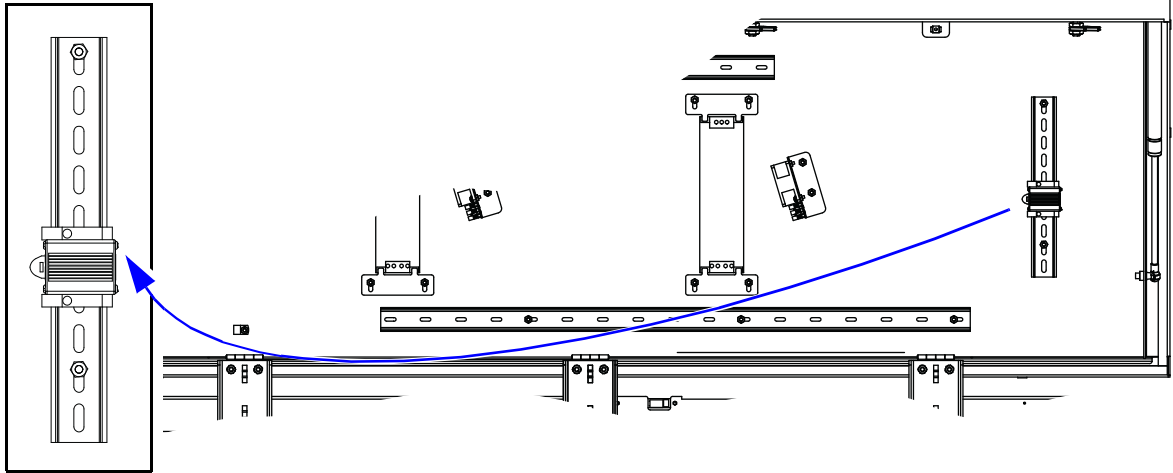
Install the replacement surge suppressor.

1. Snap the replacement surge suppressor onto the mounting rail.
2. Reconnect the wires and tighten the screws.
3. Position the circuit breaker switch to the ON position.
4. Close the sign.

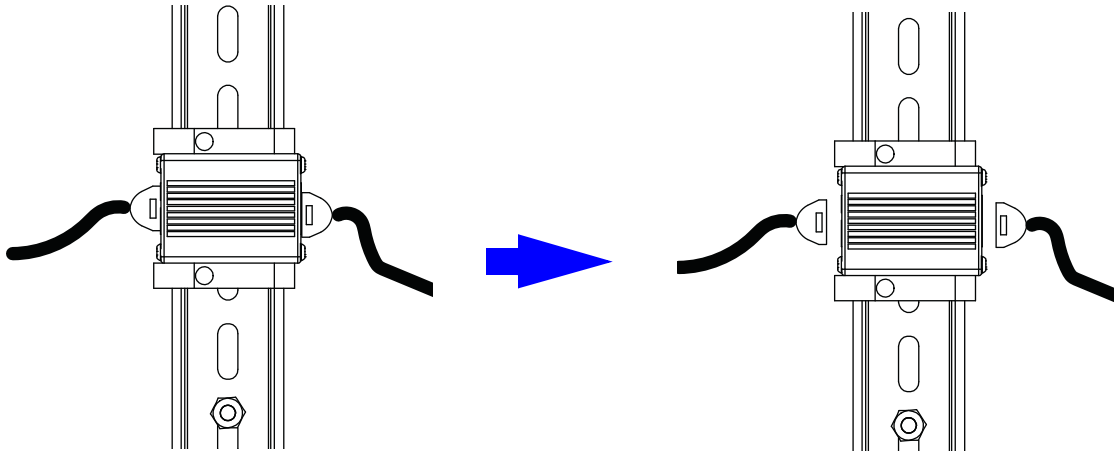
REPLACE THE ETHERNET DEVICE

■ Replace the Ethernet device

1. Turn off power. For instructions, see “Turn off power” on page 6-3.
2. Locate the device. There is only one Ethernet device. It is located in the primary sign.



3. Disconnect the connections.



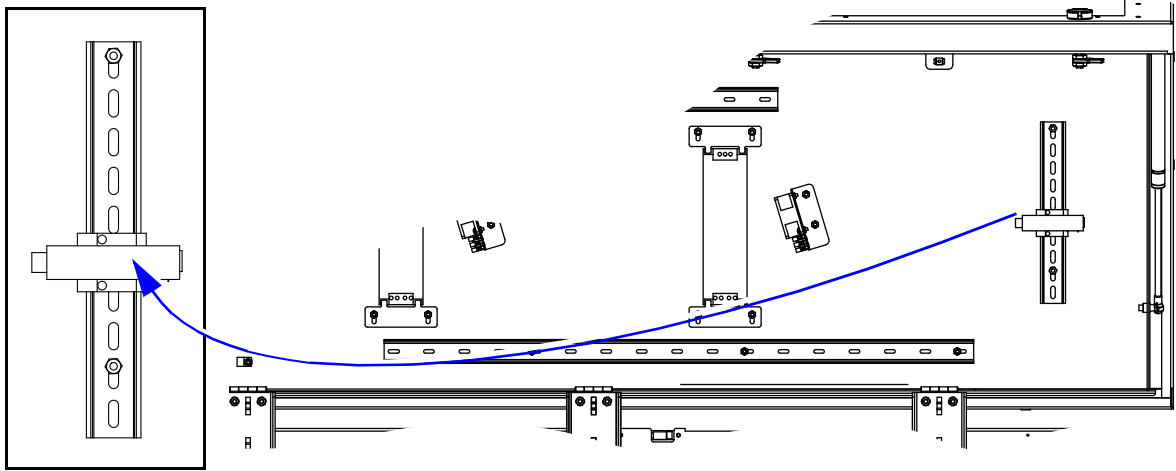
4. Remove the device.

Install the replacement Ethernet device.

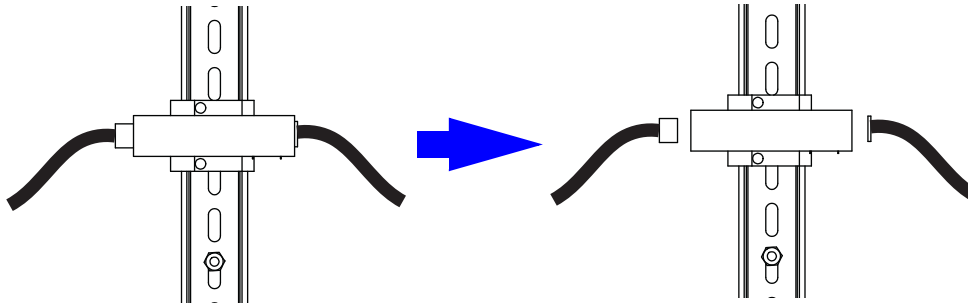
1. Snap the replacement device onto the rail.
2. Reconnect the cables.
3. Position the circuit breaker switch to the ON position.
4. Close the sign.

■ Replace the Ethernet to fiber optic converter

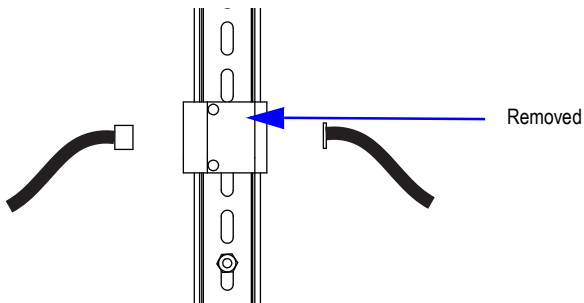
1. Turn off power. For instructions, see “Turn off power” on page 6-3,
2. Locate the device. There is only one Ethernet to fiber optic converter. It is located in the primary sign.



3. Disconnect the cables.



4. Remove the device.



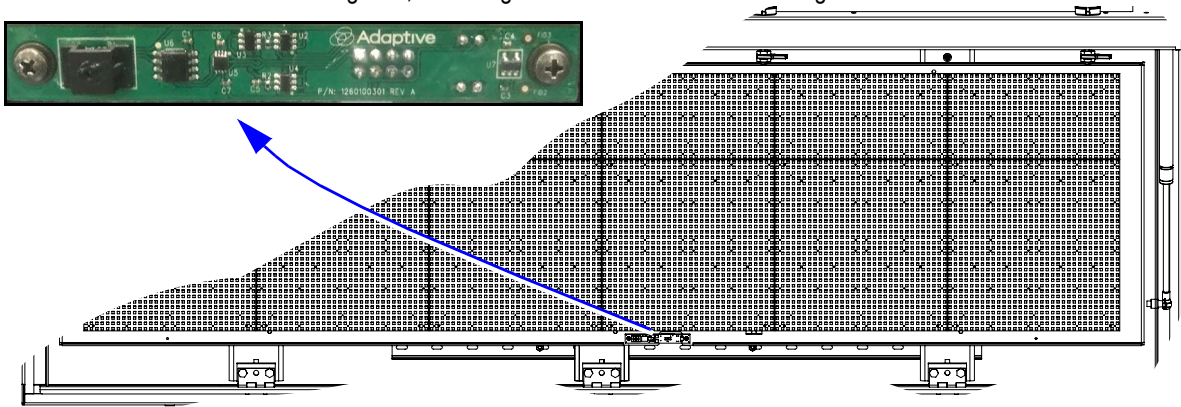
Install the replacement Ethernet to fiber optic converter

1. Snap the replacement device onto the rail.
1. Reconnect the Ethernet and fiber cables.
2. Position the circuit breaker switch to the ON position.
3. Close the sign.

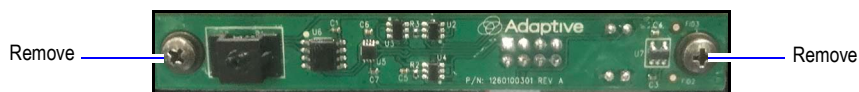
■ Replace the light sensor assembly

Tools you will need

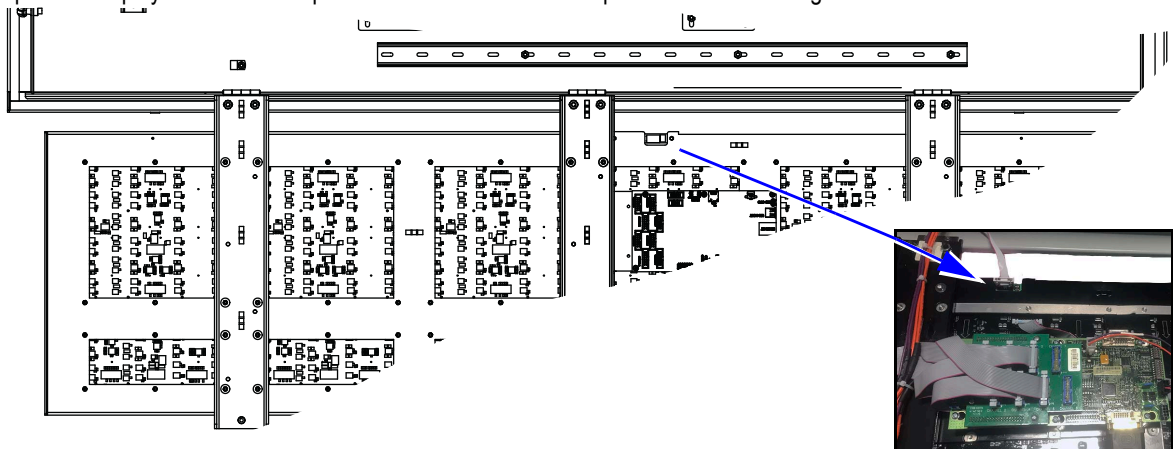
- Phillips screwdriver
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
 2. Locate the device. For two-sided signs there is a light sensor on each side of the sign.



3. Remove the two screws.



4. Open the display board rail to expose the back side of the components. Locate the light sensor.



5. Disconnect the ribbon cable from the light sensor.

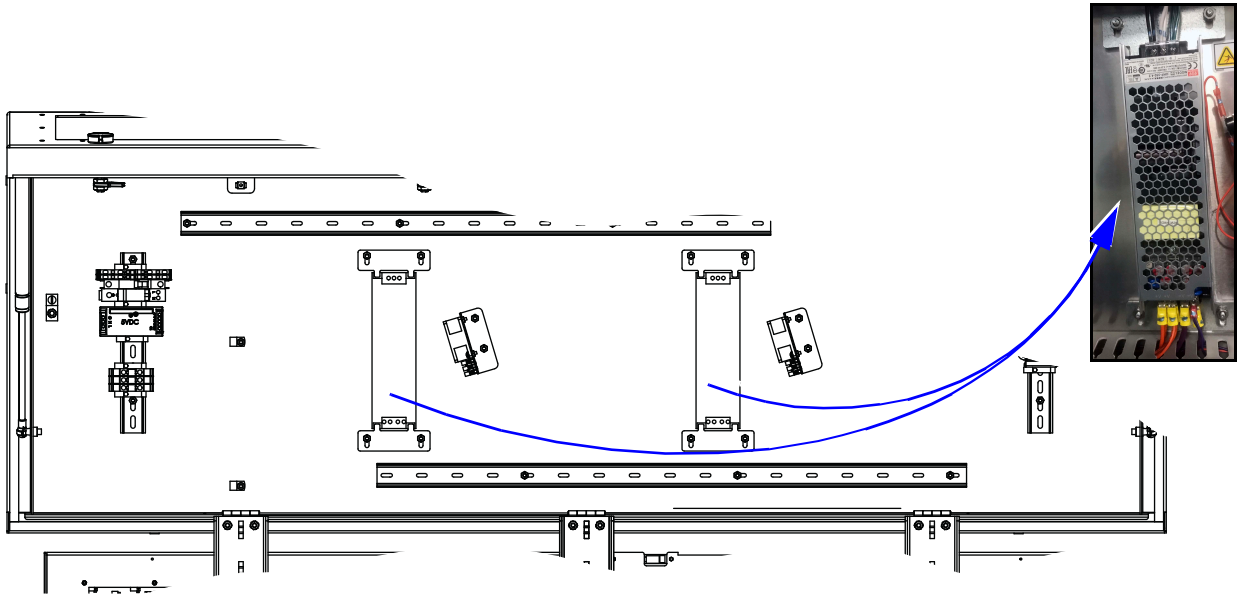
Install the replacement light sensor

1. Place the light sensor into place. Re-insert and tighten the screws.
2. Reconnect the ribbon cable.
3. Position the circuit breaker switch to the ON position.
4. Close the sign.

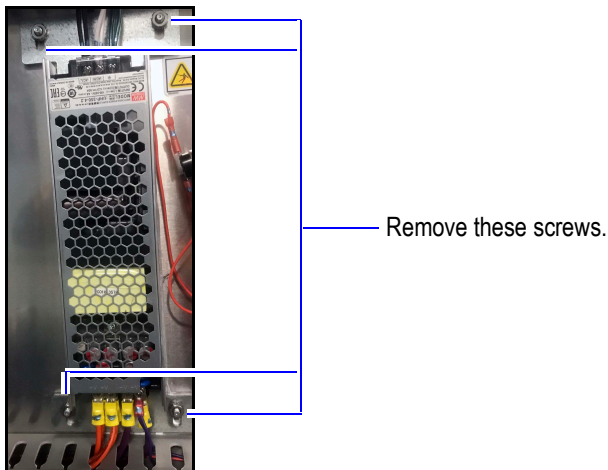
■ Replace the 4.2VDC power supply

Tools you will need

- Phillips screwdriver
 - 3/8 inch socket or wrench
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
 2. Locate the power supply. Two-sided signs contain power supplies in each side of the sign.



3. Disconnect the cables and remove the nuts.



4. Slide the plate up to remove the power supply.

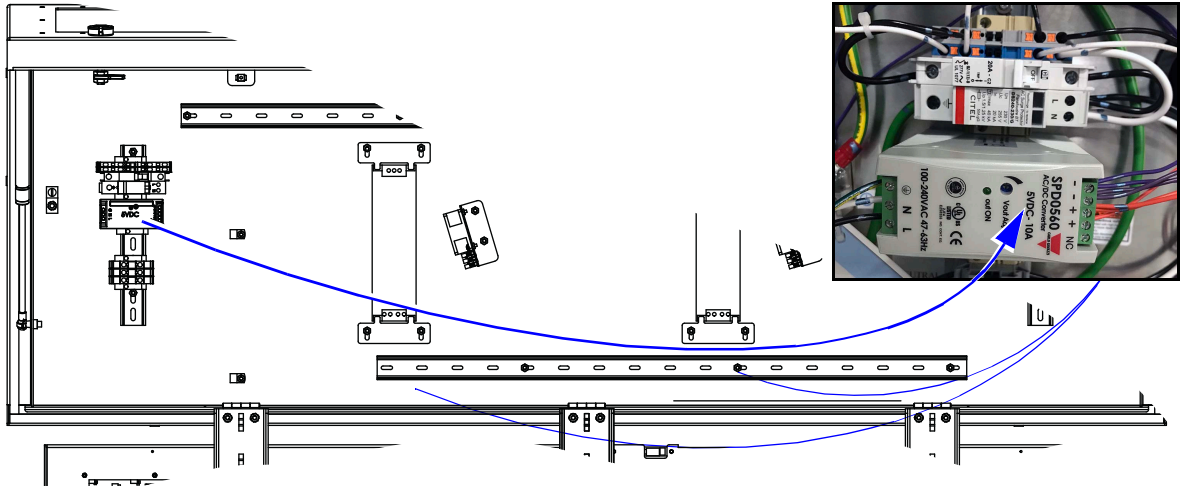
Install the replacement power supply.

1. Slide the plate back into place.
2. Replace the nuts.
3. Reconnect the wires.
4. Position the circuit breaker switch to the ON position.
5. Close the sign.

■ Replace the 5VDC power supply

Tools you will need

- Phillips screwdriver
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
 2. Locate the power supply. There is one 5VDC power supply. It is located in the primary sign.



3. Use your finger or a small screw driver to press the tab to release the power supply from the rail.



4. Pull the power supply toward you and lightly twist it to pop it off of the rail.
5. Disconnect the wires.

Install the replacement power supply.

1. Snap the replacement power supply to the rail.
2. Reconnect the wires.

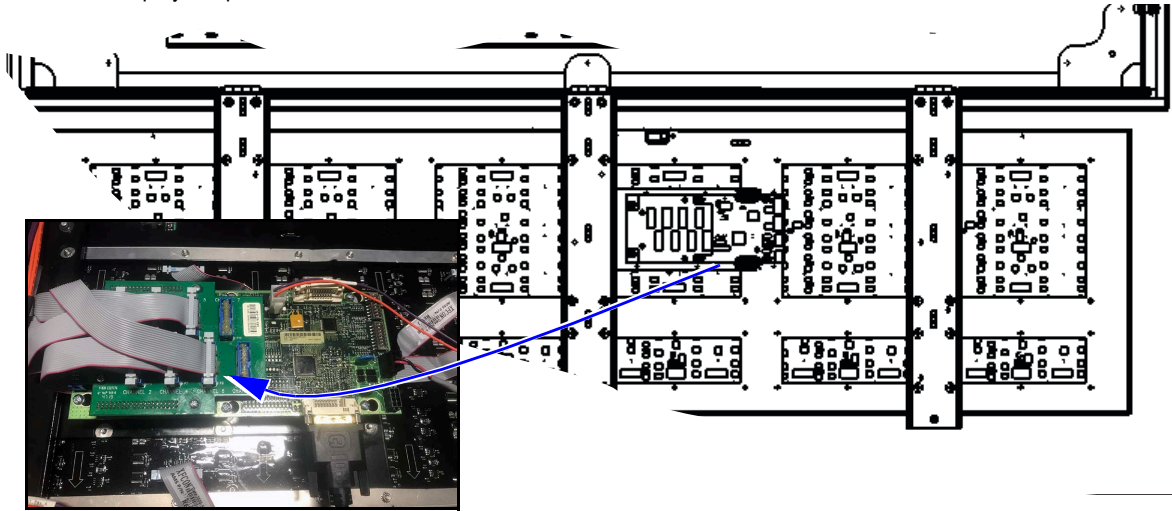


3. Position the circuit breaker switch to the ON position.

■ Replace the display adapter board

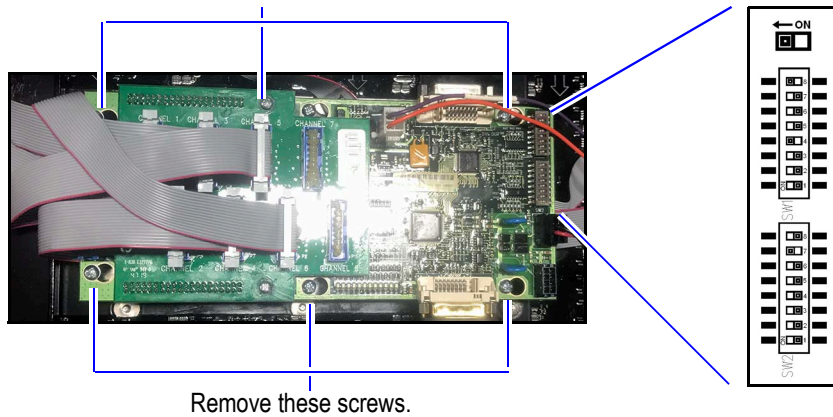
Tools you will need

- #2 Phillips screwdriver
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
 2. Locate the display adapter.



3. Disconnect all cables from the display adapter and remove the six mounting screws.

Notice: Carefully and slowly disconnect the cables. Connector pins can bend and break if forced.
Remove these screws.



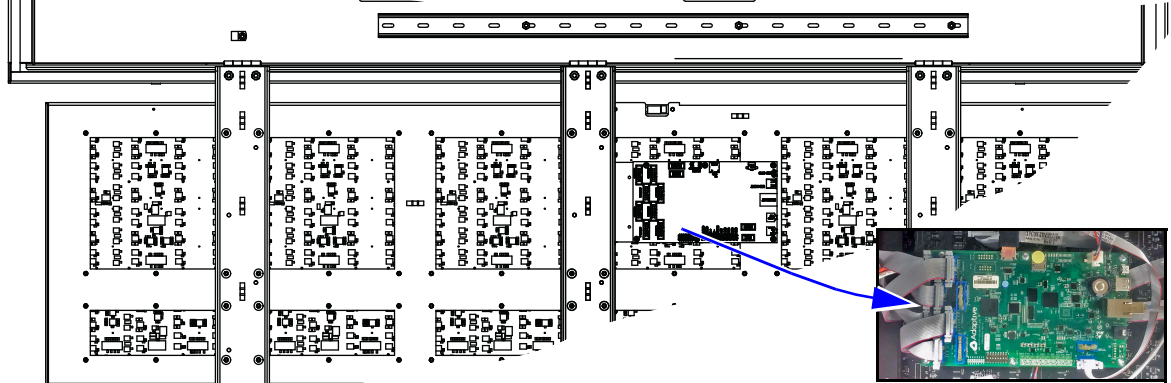
Install the replacement display adapter

1. Align the holes on the display adapter with the holes on the mounting surface.
 2. Insert and tighten the screws.
 3. Verify the DIP switches are set correctly. See the drawing in Step 3 above.
 4. Reconnect the cables.
- Notice:** Carefully and slowly connect the cables. Connector pins can bend and break if forced.
5. Position the circuit breaker switch to the ON position.

■ Replace the sign controller

Tools you will need

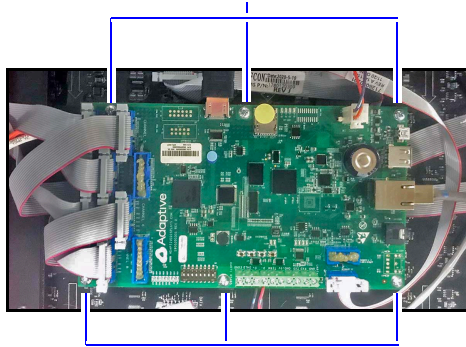
- #2 Phillips screwdriver
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
 2. Locate the sign controller. The controller is always located in the primary sign.



3. Disconnect all cables from the display adapter and remove the 6 mounting screws.

Notice: Carefully and slowly disconnect the cables. Connector pins can bend and break if forced.

Remove these screws,



Remove these screws,

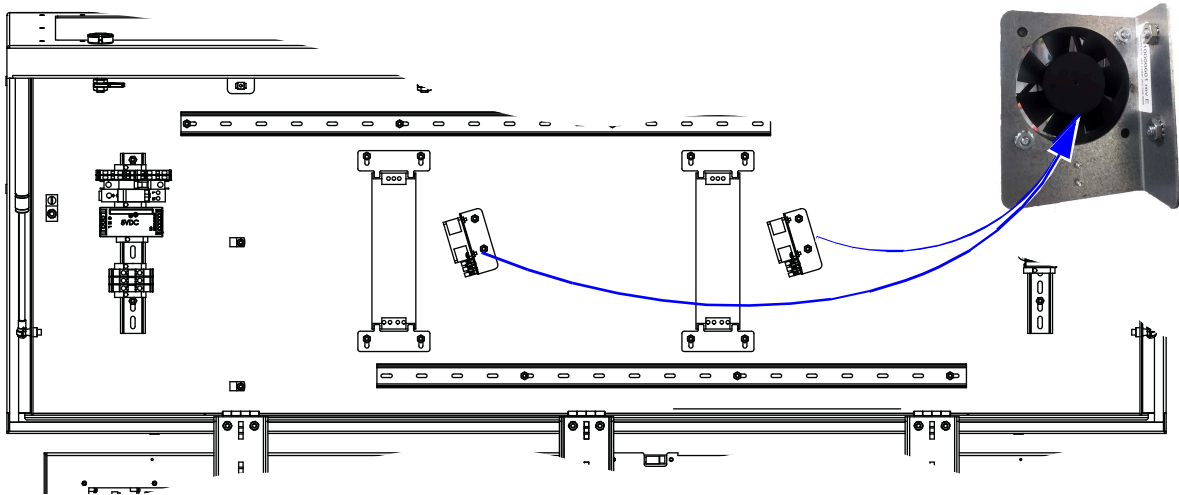
Install the replacement sign controller

1. Align the holes on the sign controller with the holes on the mounting surface.
 2. Insert and tighten the screws.
 3. Reconnect the cables.
- Notice:** Carefully and slowly connect the cables. Connector pins can bend and break if forced.
4. Position the circuit breaker switch to the ON position.

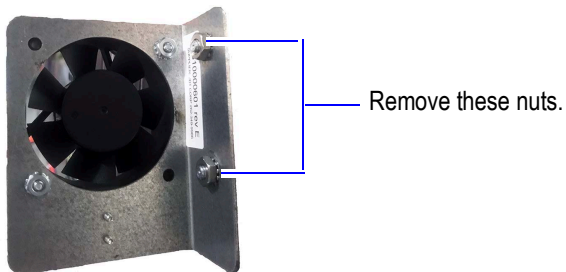
■ Replace the fan

Tools you will need

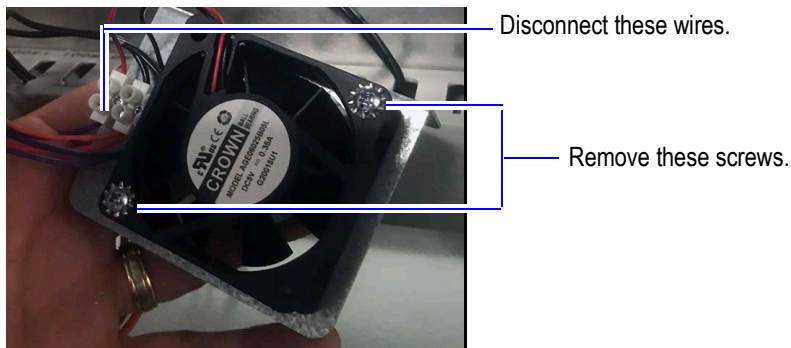
- 3/8 inch socket or wrench
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
 2. Locate the fan.



3. Remove the nuts that secure the fan bracket to the sign enclosure.



4. Remove the screws that secure the fan to the bracket. Disconnect the wires.



Install the replacement fan

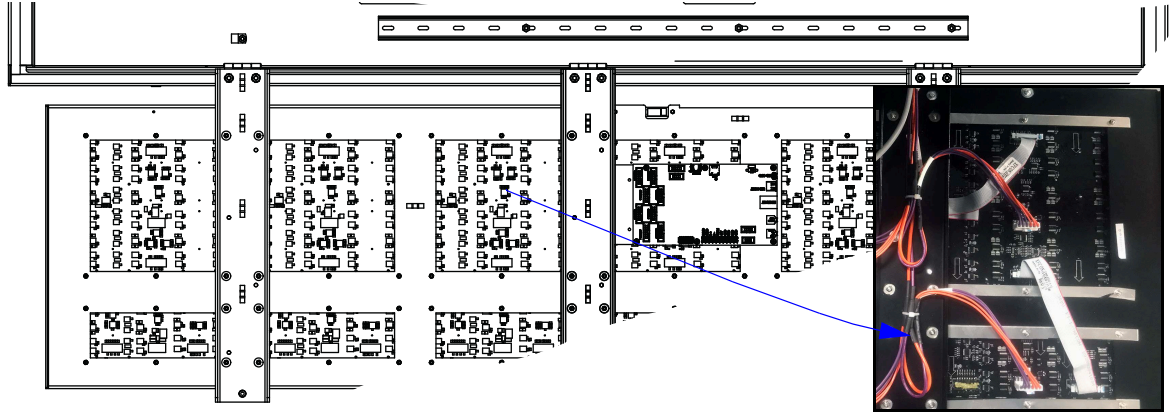
1. Insert the replacement fan into the bracket. Insert and tighten the nuts. Reconnect the wires.
2. Reattach the fan bracket to the sign enclosure. Tighten the screws.
3. Position the circuit breaker switch to the ON position.

■ Replace the display board

Tools you will need

- Socket wrench and 7/32 inch socket

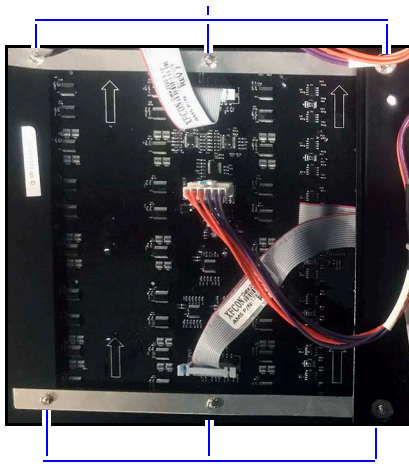
1. Turn off power. For instructions, see “Turn off power” on page 6-3.
2. Locate the display board.



3. Remove the six screws and disconnect the cables.

Notice: Carefully and slowly disconnect the cables. Connector pins can bend and break if forced.

Remove these screws.



Remove these screws.

4. Remove the display board from the sign.

Install the replacement fan

1. Insert the replacement display board. Insert and tighten the screws. Reconnect the cables.

Notice: Carefully and slowly connect the cables. Connector pins can bend and break if forced.

2. Position the circuit breaker switch to the ON position.

THIS PAGE INTENTIONALLY BLANK

PART NUMBER 1260600601 REV. B



Adaptive Display Systems
7840 North 86th Street
Milwaukee, WI 53224 USA
414.357.2020
www.AdaptiveDisplays.com