

Overview

You can quickly transmit information over long distances between the sign and network/computer by using fiber optic cabling.

These instructions explain how to set up Excite, RoadStar, or StreetSmart signs that utilize Ooh!Media software, for use with the fiber optic communication option.

- Step 1 - Install the Ethernet strain relief connector
- Step 2 - Install the fiber optic enclosure
- Step 3 - Install Ooh!Media
- Step 4 - Send a test message

Adaptive recommends reading the instructions prior to installing and connecting the sign with fiber optic communications. If you need assistance during the installation, contact Adaptive's Technical Support team at (414) 357-2020 ext. 519.

Before you start

- You will need access to the network or a computer that will be connected to the Fiber optic/Ethernet converter for testing and changing the sign's network settings.
- Identify a location for the fiber optic enclosure that is within 25 feet of the sign's Ethernet cable entry point.
- Provide a weatherproof pathway (outdoor rated conduit or innerduct) from the building the network/computer resides at, to the fiber optic enclosure location.
- Log the sign's network settings on the lines provided. You will need at least the sign's IP address, Subnet Mask, and Default Gateway. See the network administrator for this information.

Sign Information	
IP Address:	_____
Subnet Mask:	_____
Default Gateway:	_____

Tools and equipment (not supplied with fiber kit)

Tools & Equipment	EX	RS	SS
5/32-inch hex tool		X	X
Wire cutters		X	X
Hammer		X	X
Flathead screwdriver		X	
Ethernet/Ethernet Crossover CAT5E Cable	X	X	X
Ooh!Media CD	X	X	X
Sign's network settings	X	X	X
ST/ST multimode fiber optic cabling (inside a weatherproof pathway)	X	X	X
Water-tight box connector (drill bit sized to match connector)	X	X	X
Other tools for mounting the fiber optic enclosure near the sign (#8 sized screws or bolts)	X	X	X

EX - Excite, RS - RoadStar, SS - StreetSmart

Fiber optic kit contents

Qty	Description
1	Fiber optic enclosure
1	* Fiber optic/Ethernet converter with extreme temperature rating
1	* Ethernet strain relief connector
1	* DIN rail
1	Fiber optic/Ethernet converter with AC power adapter
1	25 foot Outdoor rated CAT5E Ethernet cable
1	Fiber Optic Setup Guide

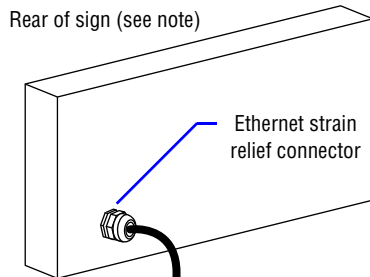
** Items are factory installed in or on the fiber optic enclosure.*

Fiber optic network diagram

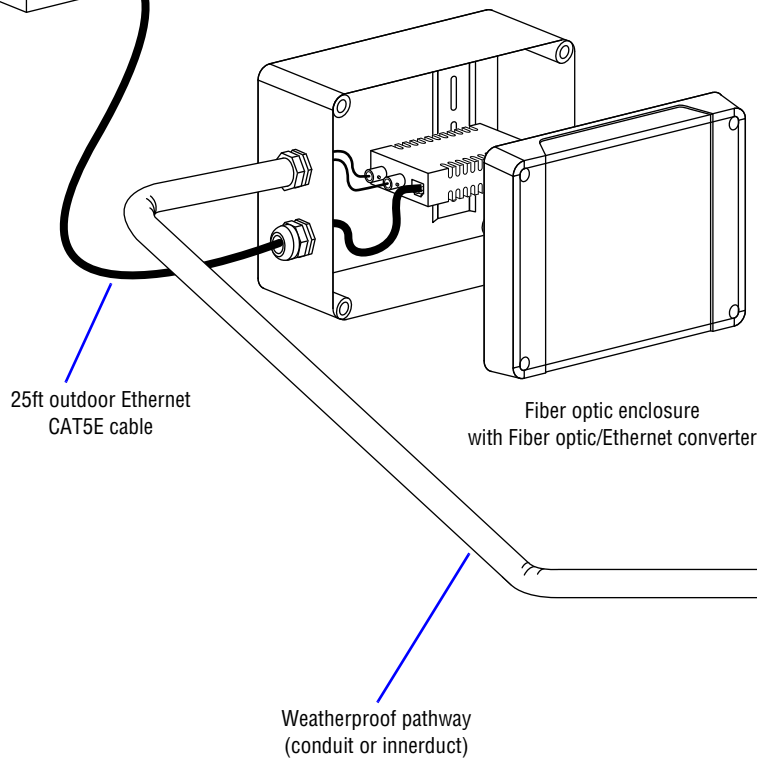
The following diagram is a guide to the fiber optic network pathway and components.

NOTE: When facing the RoadStar and StreetSmart sign the communication conduit knock-out will be on the lower left side of the sign. On Excite signs the communication point is on the lower right side of the sign.

Step 1

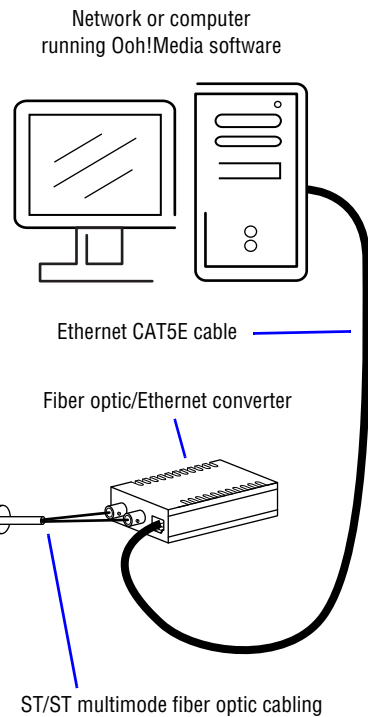


Step 2

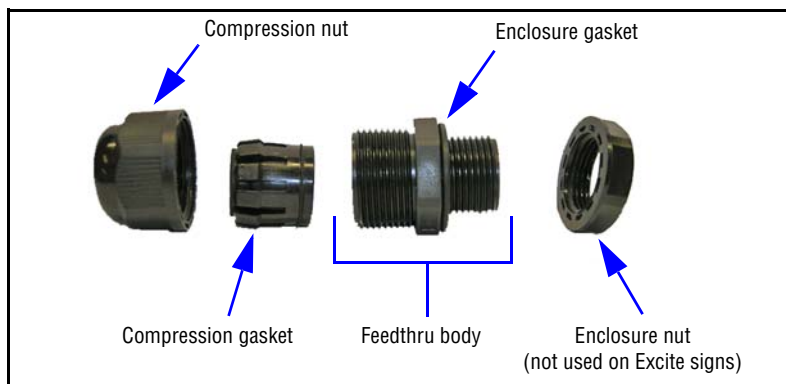


Building wall

Step 3 and 4



Ethernet strain relief connector components



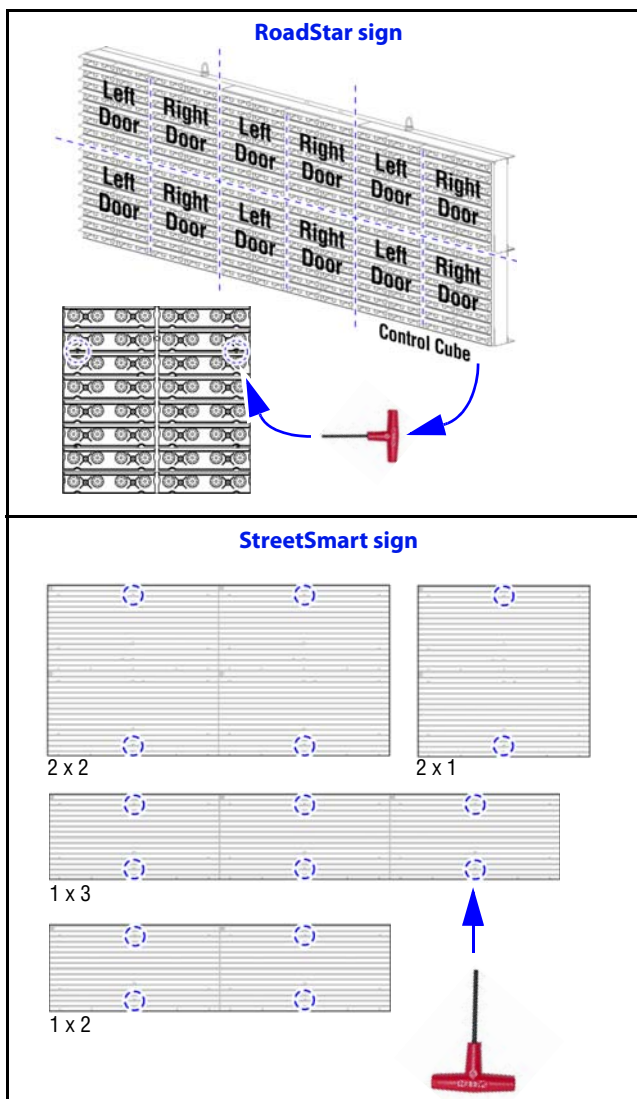
Step 1: Install the Ethernet strain relief connector

WARNING! Hazardous voltage. Contact with high voltage may 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.

Excite signs **DO NOT** require the installation of an Ethernet strain relief connector. Proceed to “Connect the Ethernet cable to an Excite sign” on page 5.

Open the door on the control cube

1. Disconnect power from the sign at the power source.
2. Locate the control cube. As you are facing the front of the sign, the control cube is in the bottom right corner (StreetSmart signs can be made up of a number of different size cubes).

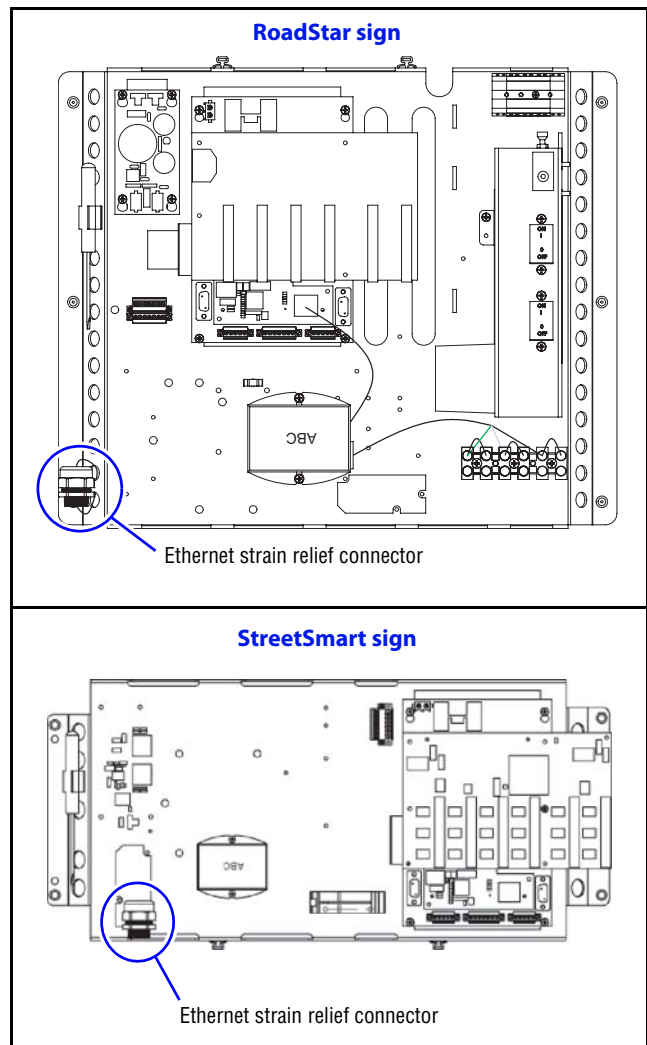


3. Use a 5/32-inch hex tool to open all locks on the control cube.
4. Carefully pull the top of the door back toward you to open.

Remove the Ethernet strain relief connector

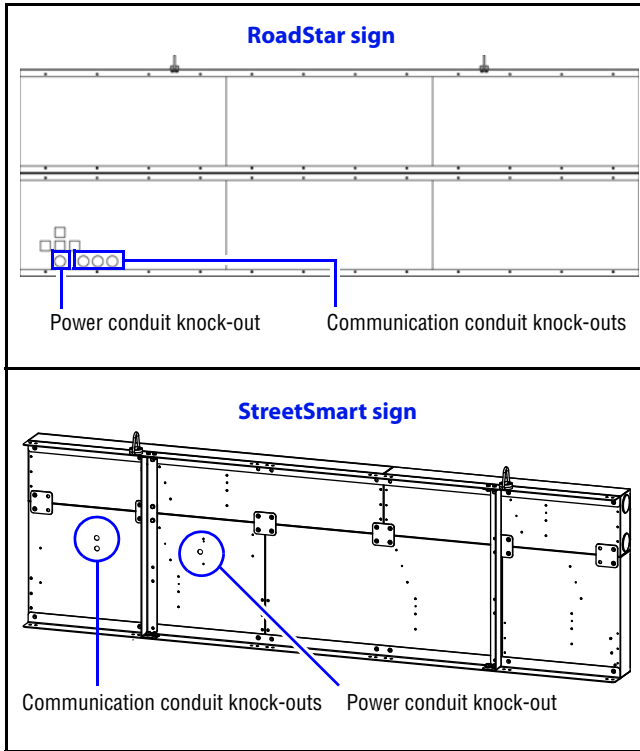
The Ethernet strain relief connector is shipped tie-wrapped to the controller plate.

Use a wire cutter to cut the tie-wrap.



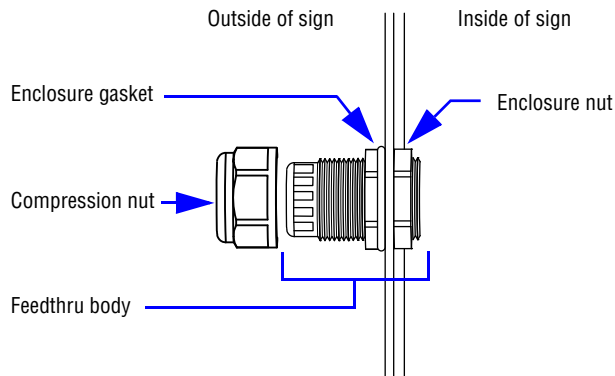
Create an entry point for the Ethernet cable

If applicable, using a hammer and a flathead screwdriver, carefully punch out one of the communication conduit knock-outs.



Install the Ethernet strain relief connector

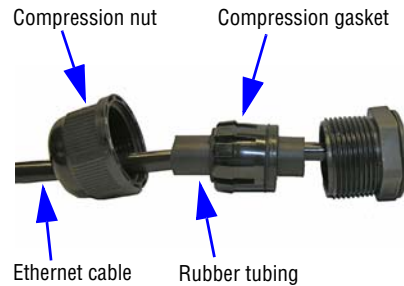
1. Disassemble the Ethernet strain relief connector assembly. Do not remove the rubber enclosure gasket on the feedthru body.
2. From the outside of the sign insert the enclosure gasket end of the feedthru body into the knock-out.



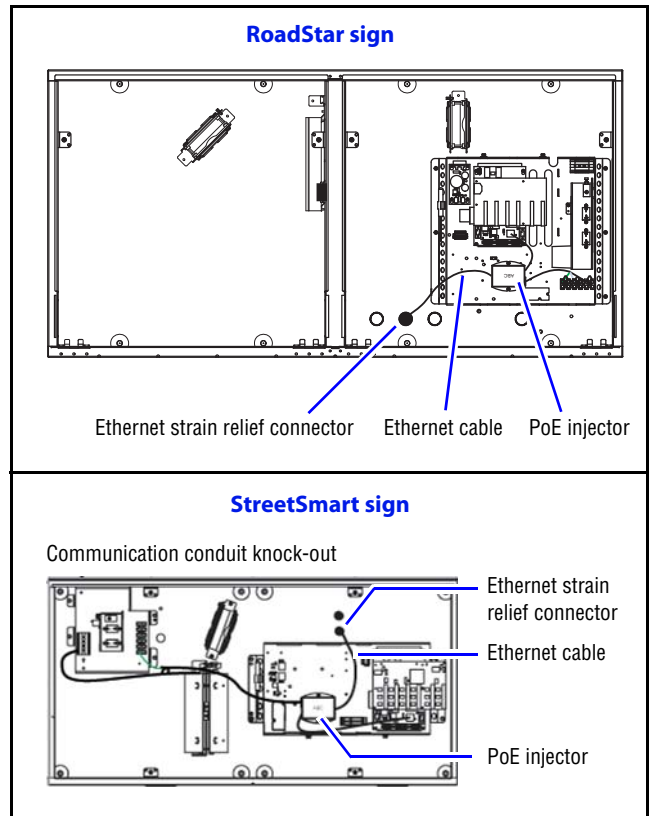
3. On the inside of the sign, install the enclosure nut onto the feedthru body.
4. While holding the feedthru body, hand tighten the enclosure nut.

Connect the Ethernet cable

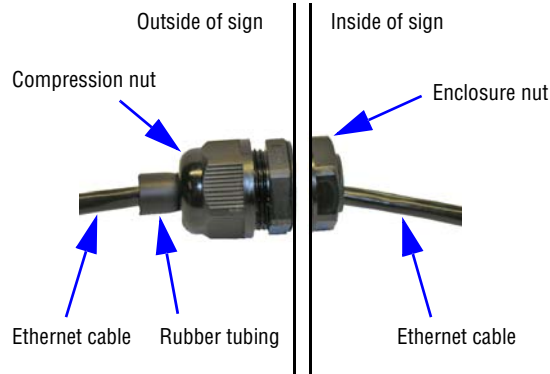
1. Route the RJ45 connector on the Ethernet cable (provided with the fiber optic kit) through the Ethernet strain relief connector.
2. Position the rubber tubing on the Ethernet cable inside the compression gasket.



3. Connect the RJ45 connector to the Ethernet port on the PoE injector, leaving a little slack inside the sign.



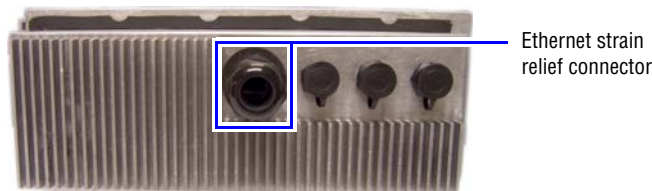
4. Tighten the compression nut until the compression gasket is tight around the cable. It is tight enough when you pull on the cable and it doesn't move.



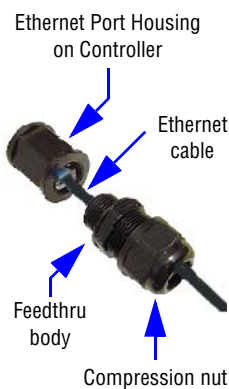
5. Close and lock the sign's control cube.

Connect the Ethernet cable to an Excite sign

View of the controller box on the back of the Excite control case.



1. Remove and disassemble the Ethernet strain relief connector from the back of the controller box.
2. Route the RJ45 connector on the Ethernet cable (provided with the fiber optic kit) through the Ethernet strain relief connector.
3. Plug the RJ45 connector into the sign controller's Ethernet port housing.
4. Tighten the feedthru body onto the Ethernet port housing on the controller.
5. Tighten the compression nut until the compression gasket is tight around the cable. It is tight enough when you pull on the cable and it doesn't move.



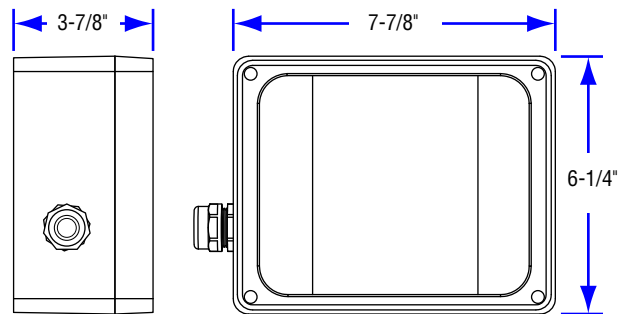
Step 2: Install the fiber optic enclosure

Locate an installation site

Locate a site to install the fiber optic enclosure within 25 feet of the sign. Installations over 25 feet are not recommended.

Note: Do not mount the fiber optic enclosure on the sign.

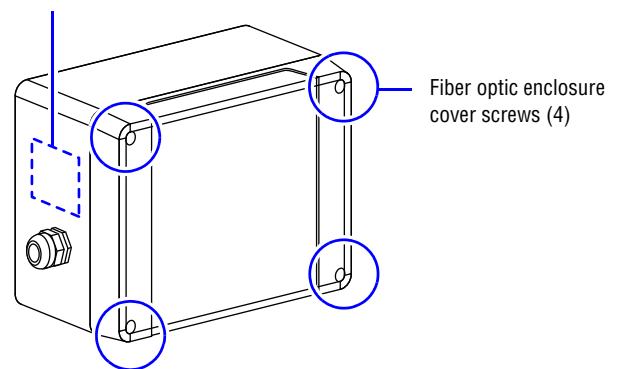
Fiber optic enclosure dimensions



Prepare the fiber optic enclosure for mounting

1. Loosen the four cover screws and remove the cover.
2. Drill an opening near the Ethernet strain relief connector on the fiber optic enclosure for the water-tight box connector.

Designated drilling area for water-tight box connector

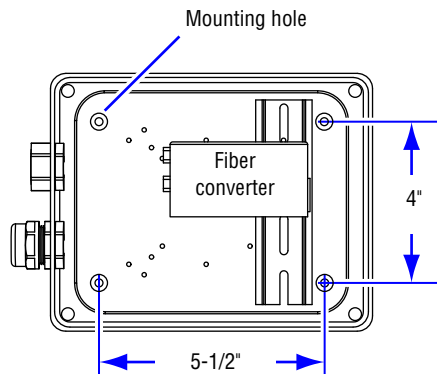


3. Secure the water-tight box connector to the fiber optic enclosure.

Mount the fiber optic enclosure

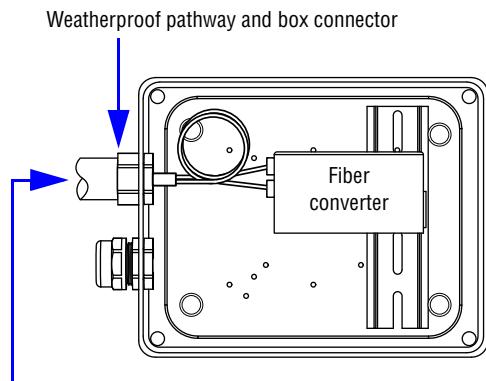
Use #8 size screws or bolts, and appropriate hardware material/finish for your mounting application.

1. Attach fiber optic enclosure to the mounting location.
2. Remove the four rubber plugs from the cover of the fiber enclosure and place them over the mounting hardware.



Connect fiber optic cabling to the fiber converters

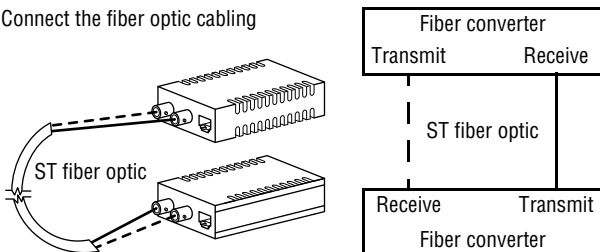
1. Pull the fiber optic cabling through the weatherproof pathway.
2. Route the fiber optic cabling through the water-tight box connector and secure the weatherproof pathway to the connector.



ST multimode fiber optic cabling from the fiber converter on the network

3. Plug the ST fiber ends into both fiber converters. The ST fiber ends plug into opposite ports on the two fiber converters (shown in diagram).

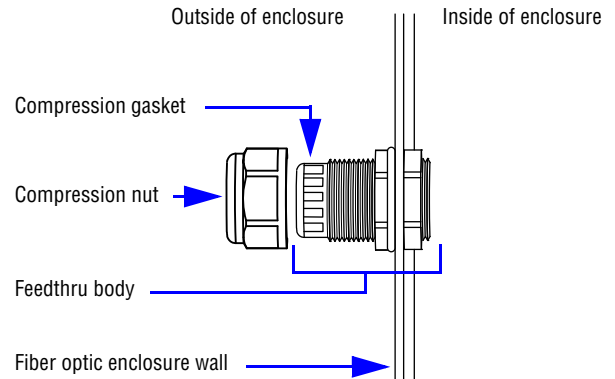
Connect the fiber optic cabling



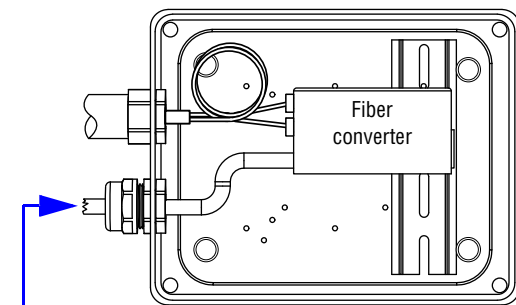
Connect the Ethernet cable to the fiber converter

The fiber optic converter inside the fiber optic enclosure receives DC power via the Ethernet cable connected to the PoE (power over ethernet) injector inside the sign.

1. Remove the compression nut and gasket from the Ethernet strain relief assembly on the fiber optic enclosure.
2. Route the Ethernet cable end (from the PoE injector) thru the compression nut, gasket, and the feedthru body into the fiber optic enclosure.



3. Position the rubber tubing on the Ethernet cable inside the compression gasket.
4. Plug the Ethernet cable into the Ethernet port on the fiber optic converter, leaving a little slack inside the enclosure.



Ethernet cable from sign's PoE injector

5. Tighten the compression nut until the compression gasket is tight around the cable. It is tight enough when you pull on the cable and it doesn't move.
6. Confirm the fiber and cable connections are seated properly in the ports on the fiber converter.
7. Position the cover over the fiber optic enclosure and tighten the four cover screws.
8. Connect an Ethernet cable between the network/computer and the fiber converter inside the building.
9. Plug the AC power adapter for the fiber converter, located inside the building, into a wall receptacle.
10. Apply power to the sign at the power source.

Step 3: Install Ooh!Media

Insert and install Ooh!Media

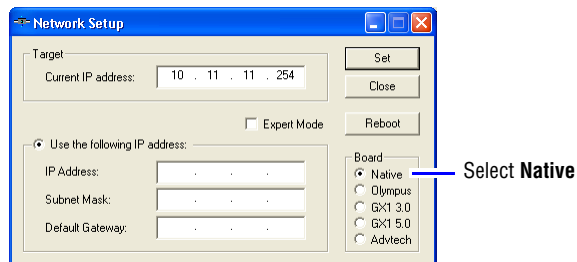
1. At the network computer, insert the Ooh!Media CD into the CD-ROM drive.

If the installation does not start automatically, do the following:

- Select **Start > Run**.
 - Type **D:/amplayer** (use the correct letter for your CD drive if not D) and click **OK**.
2. On the first screen, click the **Install Ooh!Media** button and follow the instructions.

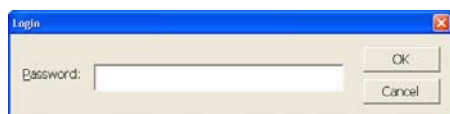


3. In the Network Setup window, set the IP address information. You will need most of this from the network administrator.



Only check the Expert Mode box to set advanced options such as the primary DNS. Only do this if instructed by the network administrator, Internet service provider, or Adaptive Micro Systems.

4. Click **Set**.
5. If the Login prompt appears, enter your password, click **OK** and then click **Close** in the Network Setup window. By default the password is set to **ooh**.



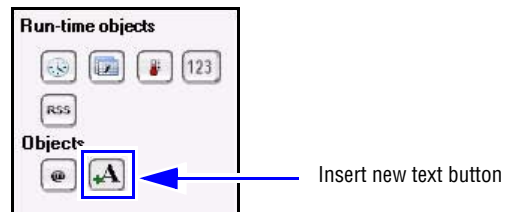
Step 4: Send a test message

Enter a test message on the sign

1. Start Ooh!Media.
Click **Start > All Programs > Ooh!Media > Ooh!Media**.



2. In the lower portion of the Ooh!Media window under Run-time Objects, click the insert new text button.

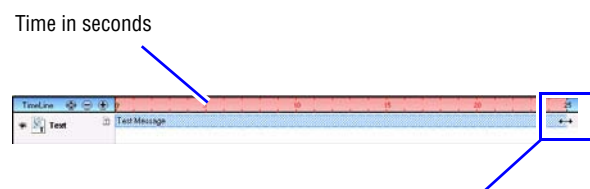


A new text message box appears in Ooh!Media.

3. Highlight the text inside the message and type an appropriate test message.



4. Extend the length of the message by stretching it in the Timeline.



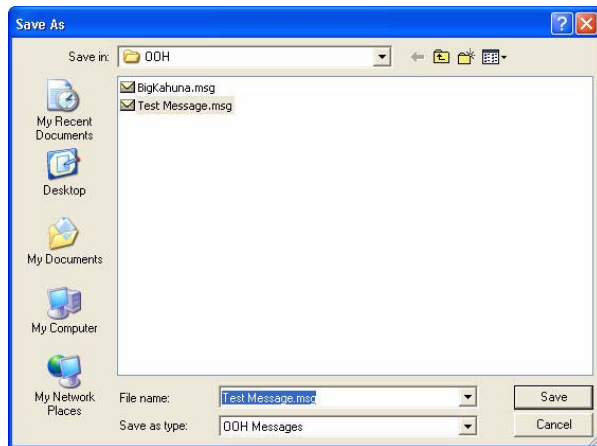
Hover the cursor at the edge of the message until the double arrows appear. Click and drag to adjust the message length, release at the desired time length.

Extend the message long enough for you to go to the sign and confirm your message appears on the sign display.

5. Click the disk icon to save the message.



6. Name the message and click **Save**.



7. Click the send message icon to send the message to the sign.



8. Verify the message appears on the sign.